Session 2020-21

Class- II

Subject: Art

Study Material

Follow the Instructions given below:-

1.) Tap the link: https://snappy.appypie.com/index/app-download/appId/3515f582d4b3

2.) Then, install the 'Drawing Skills' app.

3.) Open the app

4.) Click on 'options' icon at the top left

5.) Click on 'B' Icon

6.) Select the video according to your ward's class

7.) Play the video and draw and colour the drawing as per instructions in the video

Note:

1. Parents are requested to provide a drawing notebook to students which is easily available at the home

2. Children can use any colours that are available at the home

Stay home, Stay

Healthy!

Thank you

JAGAT TARAN GOLDEN JUBILEE SCHOOL

Session: 2020-2021

Subject: COMPUTER SCIENCE

CLASS 2

PDF OF CHAPTER 1 AND 2 (including exercises)

Cyber Tools-Bk2-ch1 and 2.pdf

Material required:

If possible takeout the printouts of the first two chapters (class wise and chapter wise PDF attached above) and do the exercises, otherwise take interleave notebook and pen down the exercises and solve them.

Video tutorials of the lessons:

To access the videos copy the given link and paste it on the browser address bar and press enter key.

Or

CTRL + click on the link given

Class 2 videos of Lesson 1 and 2:

https://drive.google.com/drive/folders/1FdSoKW_1edtjAVt0CJCW_AtTdjIADODy

2

Cyber TOOLS

Based on Windows 10 with MS Office 2016 Version

ACTIVITY BOOK

Name .....

Class ..... Section ..... Roll No .....

School .....

Address .....

Phone .....

CONTENTS

KNOW THE BASICS

KNOW THE COMPUTER PARTS AND USES

LEARN APPLICATIONS

PRACTICE PAPERS

MY CRAYON TIME

Colours catch the attention of students and make the learning interesting. Special activities are designed in this book, where a child has to use crayons to display his/her creative skills.

2 PARTS OF A COMPUTER

LEARNING IN THIS CHAPTER

- Four main parts of a computer
- Other parts of a computer, such as Printer, Microphone, Speakers, and CD

A human body is made up of different parts. Each part has a special work to do. In the same way, a computer is made up of different parts. All these parts together make a computer work.

A computer is a machine that has four main parts: Monitor, Keyboard, CPU, and Mouse.

MONITOR

- A monitor looks like a TV screen.
- It shows the text typed in and the work done by us. It also displays the results.

KEYBOARD

- A keyboard has many buttons, which are called keys.
- A keyboard is used for typing letters, words, numbers, and special symbols.
- A standard keyboard has 104 keys.

CENTRAL PROCESSING UNIT (CPU)

- CPU stands for Central Processing Unit.
- CPU is called the brain of a computer.
- It helps a computer to think and do all its work.

- It also helps a computer to remember things .
- All the other parts of the computer are attached to the CPU by wires.

MOUSE

- A computer mouse has two buttons on it.
- It is used to point, move, and select any item on the computer screen or monitor.
- A mouse also helps us to draw pictures and play games.

TYPES OF MOUSE

A mouse can be of different types:

Two-button mouse

Scroll mouse

Scroll Mouse

A scroll mouse has a scroll wheel in the middle of the left and right buttons. We can move a page up and down by moving the scroll wheel.

A scroll mouse is of two types:

Ball mouse

A ball mouse has a ball under it. This ball helps to move the mouse pointer on the screen.

An optical mouse uses light instead of a ball for the movement of the mouse pointer.

Optical mouse

MORE PARTS OF A COMPUTER

Apart from the four main parts, there are some other parts of a computer, which can be attached to it for different functions.

PRINTER

- A printer is used to print the text or pictures on a paper.
- It can print in black and white or colour.
- The printed copy on a paper is called the hard copy.

Some commonly used printers		
		
Dot matrix	Inkjet	Laser

MICROPHONE

A microphone is used to record our voice and different sounds into a computer. It also helps us to talk to our friends through the internet.

SPEAKERS

Speakers allow us to listen to music and hear the sound effects stored in a computer.

HEADPHONES

Headphones are used to listen to music as well as recorded sounds without disturbing others.

COMPACT DISK (CD)

- A CD is round in shape. It is used to store a lot of information.
- It is a shiny disk that runs on a CD drive.
- The CD drive is fixed in the CPU.

HARD DISK

- Hard disk is like a box, which is fixed inside the CPU.
- It is used to store computer data.

PEN DRIVE

- It is a small rectangular device, that is used for transfering data from one computer to another.
- It is also called a Flash drive, Thumb drive, or Jump drive.

Computer Care Tip

Always press the keys of a keyboard gently. Hitting them hard can damage the inner connections.

Computer Care Tip

Place your computer in a cool, clean, and dry place.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks with the help of the hints given below.

1. CD stands for ..... .
2. A standard keyboard has ..... keys.
3. A mouse has ..... buttons on it.
4. A ..... is used to record our voice into a computer.

Hints
- Two
- Microphone
- 104
- Compact Disk

B. Write T (True) or F (False).

1. The buttons on a keyboard are called keys. ☐
2. Inkjet is a kind of printer. ☐
3. Speakers are used to record sound. ☐
4. A printer shows the text on the monitor. ☐

C. Match the parts of a computer with their pictures.

A		B
Pen drive		Monitor
Mouse		Microphone
Speakers		CPU
Headphones		Hard disk

SECTION - B

A. Tick the right answer.

1. Which one of the following is not used to store data?

   a. Keyboard ☐ b. Pen drive ☐ c. Hard disk ☐

2. The printed copy on paper is called the ..... .

   a. Softcopy ☐ b. Record copy ☐ c. Hard copy ☐

3. A ..... helps in playing games and drawing pictures.

   a. Keyboard ☐ b. Mouse ☐ c. CPU ☐

4. CPU stands for ..... .

   a. Central Processing Unit ☐ b. Central Processed Unit ☐

   c. Center Processed Unit ☐

B. Answer the following questions.

1. Name the main parts of a computer.

   .....

2. Which part of a computer is used to point at and select an object?

   .....

3. Name the computer part that is known as the brain of a computer.

   .....

4. Which part of a computer looks like a TV?

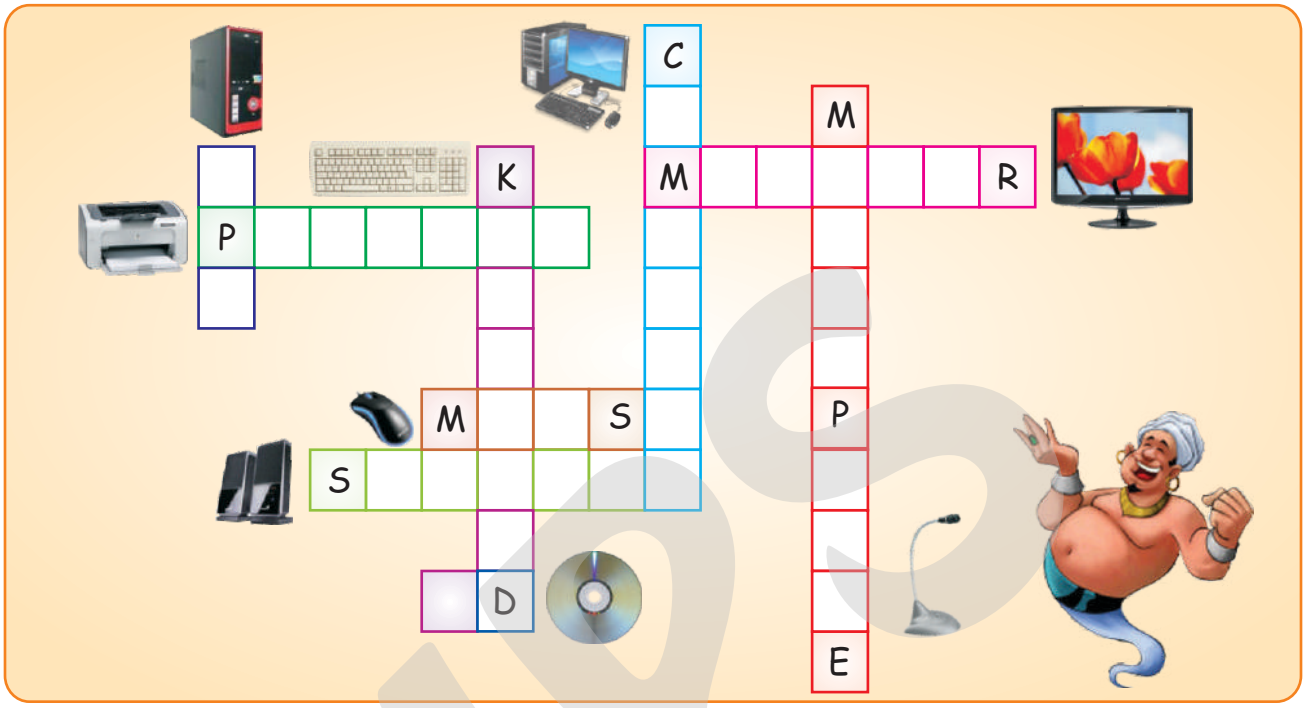
   .....

5. Name the device that is used for transferring data from one computer to another.

   .....

.

A. Fill in the crossword with the help of the picture hints.



B. Search the computer parts in the given picture and write their names in the given space.

1. .....
2. .....
3. .....
4. .....
5. .....
6. .....
7. .....
8. .....

....

My Name Date Teacher's Signature

LAB ACTIVITY

For Teachers

- Show the different parts of a computer to the students in the lab.
- Ask them to spell each part of a computer five times.
- Demonstrate how to put a CD in the CD Drive.

For Students

- Open WordPad by clicking on the Start > Windows Accessories > WordPad.
- Type the following sentences and fill in the blanks by using the jumbled letters, given in the blocks.

1. I have many keys. I am a ..... . Y E K R O A D B
2. I look like a TV. I am a ..... . R O T I N O M
3. I am the brain of a computer. I am a ..... . P U C
4. I am used to record your voice. ..... . C R O M P H O I N E
5. I am used to take printout on paper. ..... . T P I N R E R
6. I help you to listen to music. ..... . K S E P A E R S

Online Links

Visit the sites: www.quia.com/rr/33090.html and http://www.thekidzpage.com/online-jigsaw-puzzles-html5/ for solving the quiz activity.

Visit the site: www.growing.course.com/level_2/index.html to know about the different parts of a computer.

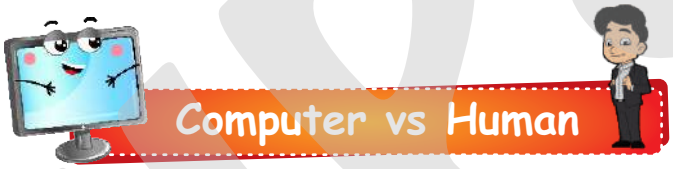
1 COMPUTER - A SMART MACHINE

LEARNING IN THIS CHAPTER

- Computer vs Human
- Uses of computers in different fields
- Types of computers

A computer is a very useful machine. It is used almost everywhere, such as in schools, homes, shops, offices, banks, and hospitals. It has become an important part of our lives.

A computer has some wonderful features that make it smarter than human beings. Let us know about each feature, one by one.



A computer stores a large amount of information and never forgets it.

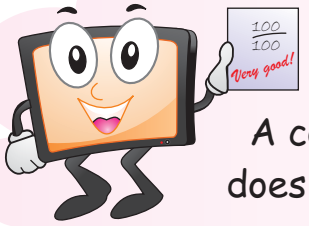
STORAGE

Humans may forget the information stored in their mind.

A computer works very fast and can do many jobs at the same time.

TIME

Humans need more time to do any work as compared to a computer.



A computer does not make any mistake.

ACCURACY

Humans can make mistakes.

A computer does not get tired and can work for long hours.

WORK PROCESS

Humans need rest after working for some time.

A computer cannot take its own decisions.

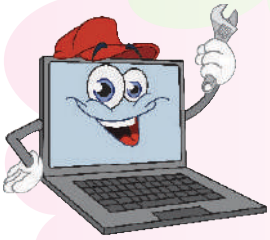
DECISION

Humans can take their own decisions.

A computer works on a human's orders.

ORDERS

Humans do not need any order to work.



A computer does not have any feelings. For example, if you hit a monitor, it does not react.

FEELINGS

Humans have feelings. For example, if you get hurt you feel the pain.

USES OF COMPUTERS IN DIFFERENT FIELDS

You must have seen computers at many places. They are used in almost all fields of life.

HOME

- Watching movies and listening to songs
- Searching for information on any topic
- Playing games
- Doing homework

SCHOOLS

- Keeping records of books and helping teachers in teaching
- Making timetable, report cards, and library records
- Doing practical work in lab
- Helping students to draw and colour pictures

SHOPS AND OFFICES

- Keeping records of items
- Typing and printing bills
- Sending and receiving messages in offices

BANKS

- Keeping the details of bank accounts
- Taking out money from ATMs

HOSPITALS

- Keeping records of patients
- Preparing medical reports, X-rays, etc.
- Helping doctors learn more about diseases and their causes

DESIGNING

- Designing clothes, cars, machines, buildings, etc.
- Designing and printing books, newspapers, magazines, etc.
- Making cartoons and animated movies

RAILWAY STATIONS AND AIRPORTS

- Booking tickets
- Keeping records of all passengers
- Giving information about arrival and departure timing

SPACE RESEARCH AND DEFENCE

- Finding information about space
- Sending rockets into space
- Helping the military make security weapons

LEARNING NEW SKILLS

- Learning how to drive a car or fly an aeroplane
- Learning different languages, cooking, and much more

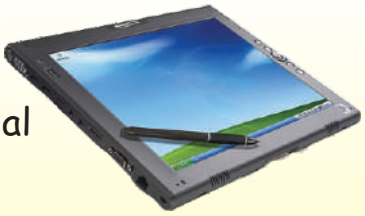
TYPES OF COMPUTERS

Computers come in many shapes and sizes.

- This is a Desktop Computer.
- Desktop computers are big in size.
- They are kept on a desk or table.

- This is a Laptop.
- It is small in size. It can be easily kept on our lap also.
- A laptop can be carried around easily.

- A Tablet is smaller than a laptop.
- It has a touch screen on which we can write using a special pen.



- A Smartphone is a mobile phone that lets you make calls, send messages, and store phone numbers.
- It can also be used to share pictures and videos, read e-mails, and search for information on the Internet.

SECTION - A

A. Fill in the blanks with the help of the hints given below.

1. A computer works on a human ..... .
2. A computer is used for keeping ..... of all items.
3. A computer is used for designing ..... .
4. A computer can be used for printing ..... .

Hints
- Bills
- Cars
- Records
- Orders

B. Write T (True) or F (False).

1. We cannot draw pictures on a computer. ☐
2. Desktop computers are big in size. ☐
3. Computers are used in offices for calculating marks. ☐
4. Computers are used in hospitals for preparing medical reports. ☐

C. Match the following.

A	B
To send rockets	Tablet
To print bills	Schools
It has a touch screen	Space
Making timetable	Railways and Airports
To book tickets	Shops

SECTION - B

A. Tick the right answer.

1. A ..... does not have feelings.

   a. Computer ☐ b. Human ☐ c. None of these ☐

2. A ..... can be kept on our lap.

   a. Palmtop ☐ b. Laptop ☐ c. Desktop ☐

3. A ..... lets you make calls, send messages, and store phone numbers.

   a. Calculator ☐ b. Smartphone ☐ c. None of these ☐

4. ..... is used to takeout the money.

   a. Car ☐ b. Tablet ☐ c. ATM ☐

B. Answer the following questions.

1. Name the three types of computers.

   .....

2. Mention any two features of a computer.

   .....

   .....

3. Name any two places where computers are used.

   .....

4. Name the computer on which we can write using a special pen.

   .....

   .....

5. Which device is used to make calls, share images, and store phone numbers?

   .....

   .....

LAB ACTIVITY

For Teachers

- Divide the students into four groups and discuss the uses of a computer in different fields.
- Demonstrate to the students how to open WordPad and enter text in it.

For Students

- Open WordPad by clicking on the Start > Windows Accessories > WordPad.
- Type the sentences given below and fill in the blanks by arranging the jumbled words.
- Press Caps Lock [Caps Lock] to type in capital letters.
- Press the Spacebar key [ ] to give space between two words.

1. I love to play games on a computer at my ..... .

   E M O H

2. My teacher uses a computer in the ..... for preparing report cards.

   L O H O C S

3. My father uses a computer at his ..... .

   E C I F O F

4. Computers are used in ..... for keeping the details of accounts.

   N K B A S

- Save the file by clicking on the Save button or selecting the option from the File menu. Type any name in the File name box.
- Click on the Save button. Then, click the Close button [X].

A. Find the activities that you can do on a computer in the word grid given below. Circle them with your crayons. Take help of the hints given below.

C	A	L	C	U	L	A	T	E
B	A	E	M	R	L	E	L	I
O	D	R	A	W	X	N	P	C
T	E	T	Y	O	T	T	E	T
Y	S	S	L	P	R	I	N	T
P	I	T	Y	X	H	O	G	A
E	G	O	K	A	P	D	C	K
N	N	R	E	M	O	D	S	A
O	B	E	E	Y	B	R	O	U
P	L	A	Y	G	A	M	E	S

Hints

- ~~Print~~
- Calculate
- Design
- Draw
- Play Games
- Type
- Store

B. Draw arrows from the boxes to the picture of a human or computer that they match with.

Can take a decision

Can work very fast

Does not need orders

Does not make any mistake

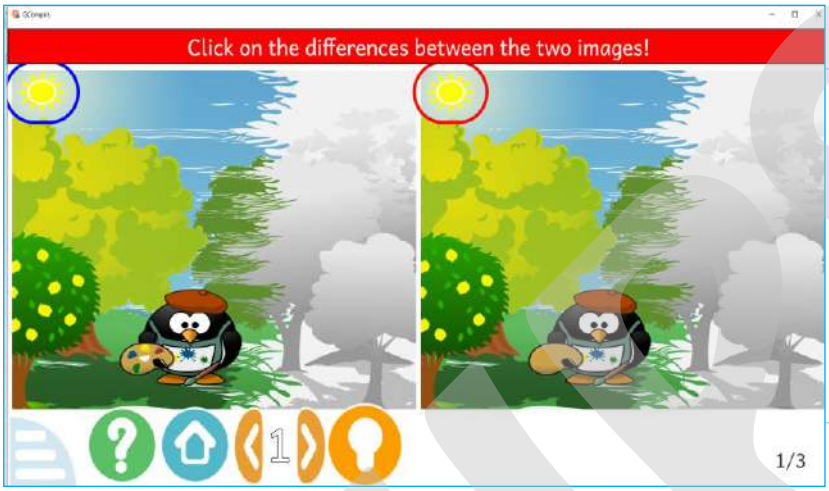
Online Links

Visit http://www.learn4good.com/kids-games/maze/funtoplay.htm and http://www.alfatyping.com/freetypinggames/abc-jumpers.html to improve your keyboard skills.

FUN TIME

A. Click on the GCompris educational software.

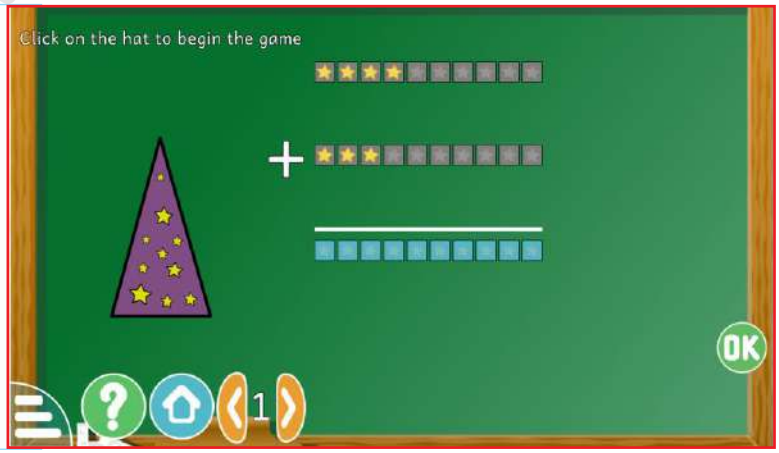
Click on the Search Specific Activities button – Select Photo Hunter .



There are three differences between the two images. Identify and click on the difference. One has been done for you.

B. Have fun with another game. Select the activity Mathematics > Numeration > The magician hat .

Start the game by clicking on the hat. Some stars will hide under the hat. Add the number of stars shown in the first two rows. Click on the correct number of stars in the blue boxes and click on OK.



Session 2020-21

Class- II

Subject: E.V.S.

Study Material

Instructions for students of

Chapter 1 - About myself

Chapter 2 - My family

Video tutorials of the lessons:

To access the videos click the given link:

For Chapter 1

1) **Visit link:** https://youtu.be/TDv6-g12Odo

2) **Visit link:** https://youtu.be/kUhGd2wXfsM

For Chapter 2

1) **Visit link:** https://youtu.be/4U_TX3TqtSk

2) **Visit link:** https://youtu.be/ewFGINyQdiY

Session 2020-21

Class- II

Subject: English

Study Material

Follow the Instructions given below:-

1. Tap the link

Visit link: https://play.google.com/store/apps/details?id=com.indiannica

2. Download the ILP app.

3. Select the chapter 'Fun with Friends'

4. Listen carefully.

5. Now complete the assignment given below.

Assignment:

Q1 - Fill in the blanks with vowels (a,e,i,o,u):-

1) f_m_ly 2)fr__nds 3)ch_ldr_n

4) pl_ygr__nd

Q2 - Fill in the blanks with the same letter twice to complete the words :-

1) ru_ing 2) quael 3) squiel 4) me_y

Q3 - Complete the sentences by selecting the right word :-

1) The Nair family lives in ____(Chennai /Delhi)

2) The children play with their friends in the ____(playground /house)

3) ___came to the playground to take all the children home (Mr.Nair /Mrs.Nair)

4) Mrs.Nair called them good children because they __(quarrelled /did not quarrel)

**Note :Do the given assignment in your english note book of your previous class ..or ..in your school diary ..or in the activity sheets..or ..any other notebook available at home .

JAGAT TARAN GOLDEN JUBILEE SCHOOL Session - (2020 - 2021)

Class - 2

E.V.S -(Book- Hello Earth)

Study Material

Follow the instructions given below -

1)Visit and download study material from JTGJS school website.

2)Open the PDF...

3)Read the Chapter 1 - About myself & Chapter 2 - My Family thoroughly.

4)Try to understand new words.

5)Learn all the key words given at the end of each chapter.

ASSIGNMENT -

Do the exercises in your old notebook / School diary / Activity sheets / Any other notebook available at home.

EXERCISES FOR CHAPTER-1

1)Complete the sentences on page 7.

2)Write any five ways in

which you are different from your friend by filling in the blanks on page 8.

3)Tick the things you like to do in your free time on page 9.

4)Circle the things you can do on your own on page 9.

EXERCISES FOR CHAPTER-2

1) Look at the family picture and answer the following questions on page 10.

2)Match the rows on page 12.

3)Write true / false on page 12.

ACTIVITY -

CHAPTER -1-*Make your handprint by tracing the outline on a sheet of white paper.Then write down a list of your hobbies on it.*

CHAPTER-2*-Collect pictures of your parents, grandparents, brothers,*

sisters,uncles, aunts and cousins.Make a family album with their names and birthdays on activity sheets.

2. भालू ने खेली फ़ुटबॉल

0217CH02

सर्दियों का मौसम था। सुबह का वक्त। चारों ओर कोहरा ही कोहरा। एक शेर का बच्चा सिमटकर गोल-मटोल बना जामुन के पेड़ के नीचे सोया हुआ था।

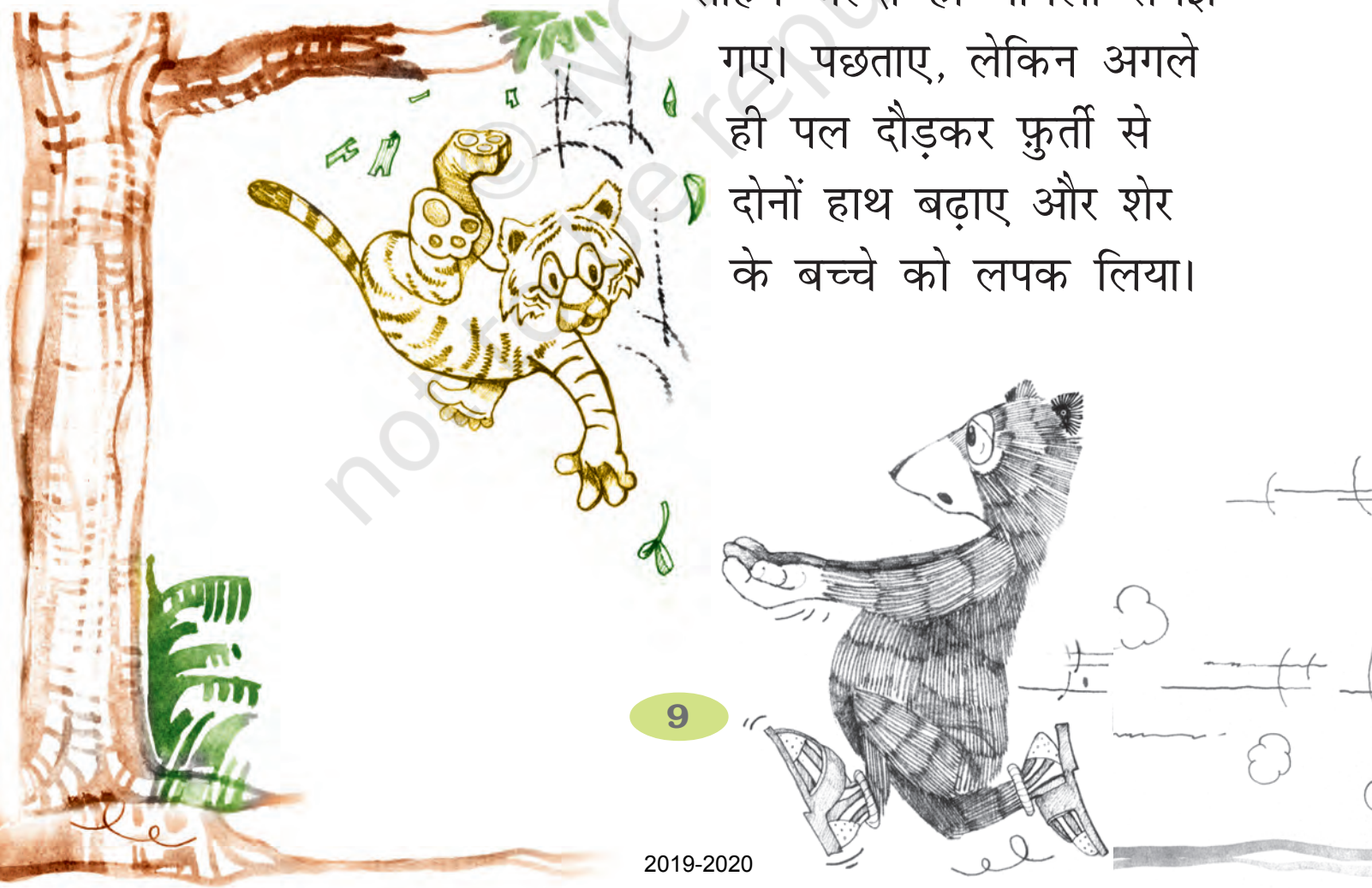
इधर भालू साहब सैर पर निकल तो आए थे लेकिन पछता रहे थे। तभी उनकी नज़र जामुन के पेड़ के नीचे पड़ी।

आँखें फैलाई, अक्ल दौड़ाई- अहा फ़ुटबॉल। सोचा, चलो इससे खेलकर कुछ गर्मी हासिल की जाए।

आव देखा न ताव। भालू जी ने पैर से उछाल दिया शेर के बच्चे को।

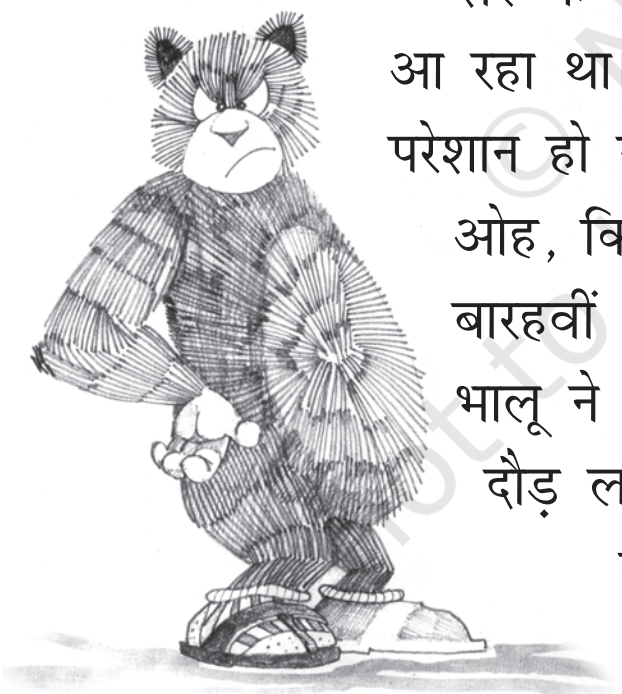
हड़बड़ी में शेर का बच्चा दहाड़ा और फिर पेड़ की एक डाल पकड़ ली।

मगर डाल टूट गई। भालू साहब जल्दी ही मामला समझ गए। पछताए, लेकिन अगले ही पल दौड़कर फ़ुर्ती से दोनों हाथ बढ़ाए और शेर के बच्चे को लपक लिया।



अरे यह क्या! शेर का बच्चा फिर से उछालने के लिए कह रहा था।

एक बार फिर भालू दादा ने उछाला।
दो बार...
तीन बार...
फिर
बार-बार यही होने लगा।



शेर के बच्चे को उछलने में मज़ा आ रहा था। परंतु भालू थककर परेशान हो गया था।

ओह, किस आफ़त में आ फँसा।

बारहवीं बार उछालते ही भालू ने घर की ओर दौड़ लगाई और गायब हो गया।

अब की बार शेर का बच्चा धड़ाम से ज़मीन पर आ गया। डाल भी टूट गई।

तभी माली वहाँ आया और शेर के बच्चे पर बरस पड़ा–

डाल तोड़ दी पेड़ की। लाओ हर्जाना।

शेर के बच्चे ने कहा– ज़रा ठीक तो हो लूँ।

माली ने कहा ठीक है। मैं अभी आता हूँ।

माली के वहाँ से जाते ही शेर का बच्चा भी नौ दो ग्यारह हो लिया। उसने सोचा–

जान बची तो लाखों पाए।

कहानी से

- शेर के बच्चे ने पेड़ की डाल क्यों पकड़ी?
- शेर का बच्चा क्यों दहाड़ा?
- भालू साहब किस बात पर पछताए?
- भालू ने क्यों कहा–ओह! किस आफ़त में आ फँसा?

पहले क्या हुआ, फिर क्या-क्या हुआ

- भालू ने शेर के बच्चे को उछाल दिया।
- शेर के बच्चे ने पेड़ की डाल पकड़ ली।
- भालू ने घर की ओर दौड़ लगाई।
- भालू साहब सैर को निकले।
- भालू ने शेर के बच्चे को लपककर पकड़ लिया।

क्या होता अगर

- भालू शेर के बच्चे को न पकड़ता?
- शेर का बच्चा नौ दो ग्यारह न होता?

करके देखो

- जब भालू ने शेर के बच्चे को उछाला, वह दहाड़ा।
  उसके दहाड़ने की आवाज़ कैसी होगी, बोलकर दिखाओ।
- नीचे लिखे कामों को कैसे करते हैं? कक्षा में करके बताओ।

लपकना	फेंकना
कंघी करना	मोज़ा पहनना
दबे पाँव चलना	धुले कपड़े निचोड़ना

शेर के बच्चे ने सुनाई आपबीती

शेर के बच्चे ने घर जाकर अपने माता-पिता को अपनी कहानी सुनाई। उसने क्या-क्या सुनाया होगा? बताओ।

खेल-खेल में

(क) फ़ुटबॉल को **फ़ुट बॉल** क्यों कहते होंगे?

(ख) ऐसे खेलों के नाम बताओ जिनमें **बॉल** (गेंद) का इस्तेमाल करते हैं।

....

पिट्ठू

तुम्हारी समझ से

ठंड से बचने के लिए शेर का बच्चा गोल-मटोल सिमटकर बैठ गया था।

तुम्हारे विचार से शेर का बच्चा ठंड से बचने के लिए और क्या-क्या कर सकता था?

उलट-पुलट

सर्दियों का मौसम। चारों ओर **कोहरा ही कोहरा**।

गर्मियों का मौसम। चारों ओर **धूप ही धूप**।

उदाहरण के अनुसार शब्दों को उलटकर लिखो।

- शेर का बच्चा फिर से **उछालने** को कह रहा था।
  शेर का बच्चा फिर से ..... को कह रहा था।
- पेड़ की एक डाल **पकड़** ली।
  पेड़ की एक डाल ..... दी।
- पिट्ठु को सतौलिया भी कहते हैं।

ठंड से बचना

भालू ने ठंड से बचने के लिए फ़ुटबॉल खेलने की बात सोची। तुम ठंड से बचने के लिए क्या-क्या करती हो? (✓) का निशान लगाओ।

- दौड़ लगाती हो।
- गर्म कपड़े पहनकर घर में बैठती हो।
- रज़ाई ओढ़ती हो।
- आग तापती हो।
- ठंडा पानी पीती हो।
- गर्म पानी में नहाती हो।
- गर्म-गर्म चाय पीती हो।

J.T. GOLDEN JUBILEE SCHOOL

CLASS -2. (2020-21)

SUBJECT - HINDI

STUDY MATERIAL

CLASS-2 , SUBJECT—HINDI, BOOK - रिमझिम भाग-2

PUBLISHED BY NCERT

> OPEN GOOGLE PLAY STORE

> SEARCH NCERT किताबे और समाधान

> DOWNLOAD -NCERT की किताबें

> कक्षा 2 की किताबें

> रिमझिम {2}

> CH - 1, "ऊँट चला"(कविता)

> डाउनलोड/ऑनलाइन पढ़े (कोई एक विकल्प चुनें)

>To watch Video click the on the link https://youtu.be/ZAEc8j2RG5c

> Read the poem thoroughly

> WRITE THE DIFFICULT WORDS IN YOUR HINDI NOTE BOOK OF YOUR PREVIOUS CLASS/ SCHOOL DIARY/ ANY SHEET OR ANY OTHER NOTE BOOK AVAILABLE AT HOME.

HINDI LITERATURE-

FOR ASSIGNMENT:

—----------

DO EXERCISES :- (कितना) -कुछ ऊँचा कुछ नीचा एवं सफ़र का सामान ।

HINDI LANGUAGE

DO EXERCISES :- अलग अलग घर एवं अक्षर की बात ।

> ACTIVITY-.

तुम्हारे आस पास कौन कौन जानवर बोझ उठाते हैं? उनके नाम लिखें ।

> CH-2 "भालू ने खेली फुटबाल"

> डाउनलोड/ऑनलाइन पढ़े (कोई एक विकल्प चुनें)

>To watch Video click the on the link https://youtu.be/OSSRnqG1DjY

> Read the lesson thoroughly

> WRITE THE DIFFICULT WORDS IN YOUR HINDI NOTE BOOK OF YOUR PREVIOUS CLASS/ SCHOOL DIARY/ ANY SHEET OR ANY OTHER NOTE BOOK AVAILABLE AT HOME.

HINDI LITERATURE-

FOR ASSIGNMENT:-

—----------

DO QUESTION AND ANSWERS OF EXERCISE-

1) कहानी से ।
2) पहले क्या हुआ,फिर क्या हुआ ।

HINDI LANGUAGE

DO EXERCISES :- उलट-पलट, ठण्ड से बचना ।

> ACTIVITY-.

ऐसे खेलों का नाम बताओ जिसमे गेंद का इस्तेमाल करते हैं ।

Moral Value

" STAY HOME, STAY SAFE "

THANK YOU.

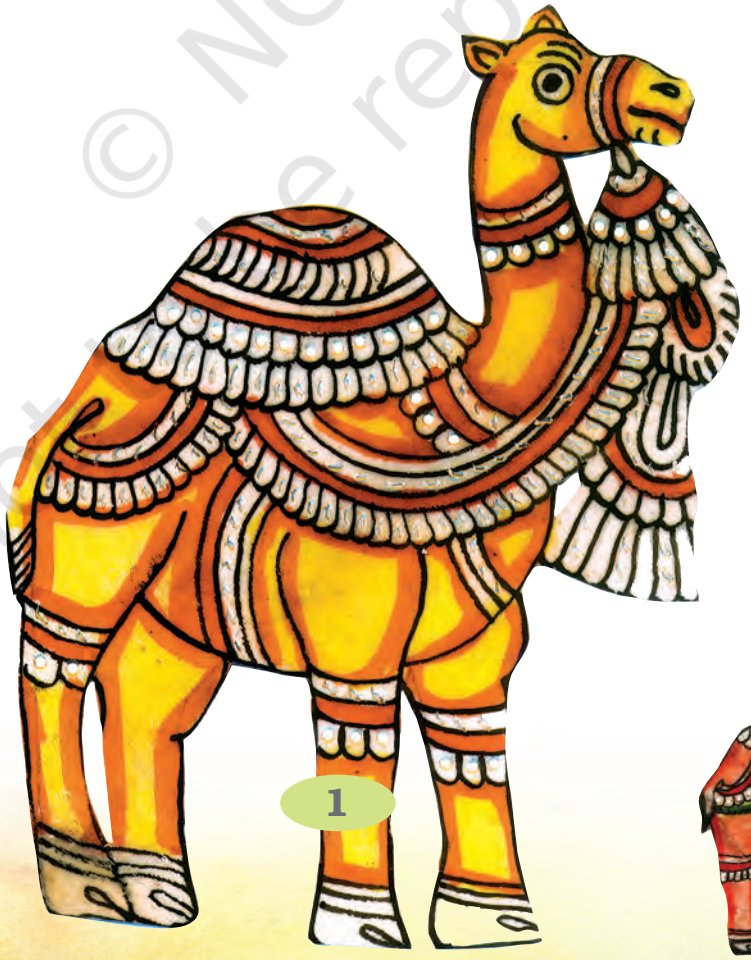
1. ऊँट चला

0217CH01

ऊँट चला, भई ऊँट चला
हिलता डुलता ऊँट चला।

इतना ऊँचा ऊँट चला
ऊँट चला, भई ऊँट चला।

ऊँची गर्दन, ऊँची पीठ
पीठ उठाए ऊँट चला।



बालू है, तो होने दो
बोझ ऊँट को ढोने दो।

नहीं फँसेगा बालू में
बालू में भी ऊँट चला।

जब थककर बैठेगा ऊँट
किस करवट बैठेगा ऊँट?

बता सकेगा कौन भला
ऊँट चला, भई ऊँट चला।

झटपट कविता पढ़ कर मज़ा लो।

.....

कुछ ऊँट ऊँचा
कुछ पूँछ ऊँची
कुछ ऊँचे ऊँट की
पीठ ऊँची

अब जल्दी-जल्दी बोलकर देखो। जीभ लड़खड़ा गई न!
कैसी लगी कविता? अब इस कविता को अपने मन से नाम दो।
ऊपर दी गई जगह में लिख भी दो।

रेगिस्तान

- ऊँट रेगिस्तान में ज़्यादा मिलते हैं। नीचे दो चित्र बने हैं। सही जगह पर ऊँट का चित्र बनाओ।

- बालू या रेत कहाँ-कहाँ पर मिलती है?

कितना

हिलता डुलता ऊँट चला
इतना ऊँचा ऊँट चला

अब बताओ

- **ऊँट कितना ऊँचा?**

तुम्हारी कक्षा की दीवार	हाथी जितना	बिजली के खंभे जितना	..... जितना

- **हाथी कितना मोटा?**

तुम्हारी माँ के संदूक जितना	ऊँट जितना	पहाड़ जितना	..... जितना

- **चींटी कितनी छोटी?**

चीनी के दाने जितनी	चावल के दाने जितनी	इलायची के दाने जितनी	..... जितनी

कुछ ऊँचा कुछ नीचा

(क) ऊँट से ऊँची चीज़ों के नाम पर गोला लगाओ।

- बछिया
- बिजली का खंभा
- आम का पेड़
- तुम्हारी कक्षा की छत
- हाथी

(ख) ऊँट के नीचे से क्या-क्या निकल सकता है?

(ग) किन-किन चीज़ों की मदद से ऊँट पर चढ़ोगे?

सफ़र का सामान

ऊँची गर्दन, ऊँची पीठ,
पीठ उठाए ऊँट चला

बताओ, ये सब क्या उठाकर चलेंगे–

हाथी	.....	.....	.....
टीचर जी	.....	.....	.....
पिताजी	.....	.....	.....
शेर	.....	.....	.....
दादा जी	.....	.....	.....

अलग-अलग घर

- नीचे कुछ शब्द लिखे हैं। इन्हें बोलकर देखो। अब मिलते-जुलते शब्दों को सही खानों में लिखो।

जूट, सूट, भला, धँस, हँस, तब, कब, गला, आलू, चालू

ऊँट	बालू	फँस	चला	जब
जूट	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

- ऐसे ही और शब्द सोचकर लिखो।

अक्षर की बात

- कविता में **ब** से शुरू होने वाले शब्द कौन-कौन से हैं? उनके नीचे रेखा खींचो।
- तुम्हारा नाम किस अक्षर से शुरू होता है? उस अक्षर से चार शब्द और लिखो।

....

....

बोझा

बालू है तो होने दो
बोझ ऊँट को ढोने दो

- बहुत से जानवरों को बोझा ढोने के लिए इस्तेमाल किया जाता है। क्या तुम्हें यह ठीक लगता है? क्यों?
- तुम्हारे आसपास कौन-कौन बोझ उठाते हैं ?

कविता बढ़ाओ

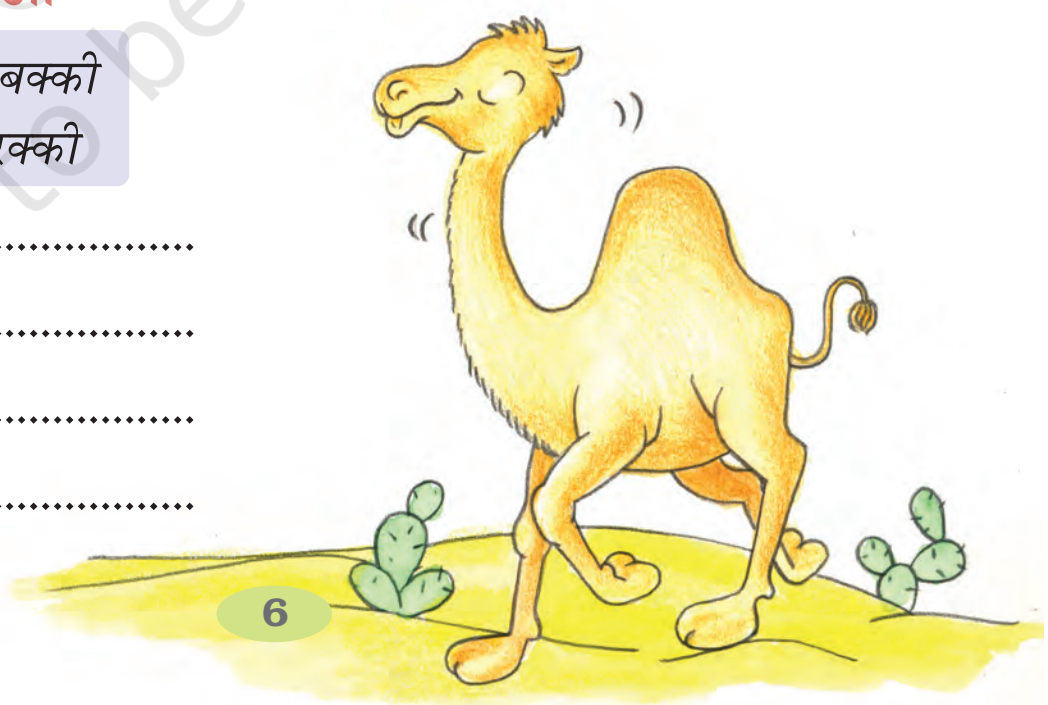
अक्की बक्की
करें तरक्की

.....

.....

.....

.....



कितने ऊँट

- इस कविता में कुल कितनी बार **ऊँट** शब्द आया है? बिना देखे बताओ।

  ..... बार

- नीचे चित्र में कितने ऊँट छिपे हैं? ध्यान से देखकर बताओ।

Session 2020-21

Class- II

Subject: Maths

Study Material:

Chapter 1 and 2 -

Video tutorials of the lesson:-

To access the videos tap on the following links:

1. For topics of chapter 1

   Visit link: https://youtu.be/1ZB5g9FMMdk

2. For patterns

Visit link: https://youtu.be/FrJ1R23aj4U

3. For place value and face value

Visit link: https://youtu.be/Paza3CbdamI

4. For geometrical shapes -

i) **Visit link:** https://youtu.be/_cdqCOCyBtE

ii) **Visit link:** https://youtu.be/61lZpLRnXUM

5. For numbers upto 1000 —

Visit link: https://youtu.be/4tOJQPhokF8

Instructions for students of class 2 for maths

JAGAT TARAN GOLDEN JUBILEE SCHOOL

Session :- 2020-2021

Class - 2

Subject - Mathematics

Book - Maths wiz

Follow the instructions given below :-

(1) Visit the school website i.e. www.jtgjschool.in and download study material from there.

(2) Open the pdf.

(3) Open

chapter 1 - LOOKING BACK (pg nos. - 7 to 24).

Recall what you have learnt in your previous class by solving exercises from 1A to 1K.

(4) Open

Chapter 2 - NUMBERS UPTO 1000 (pg nos. - 25 to 47).

Do the exercises from 2A to 2I in the notebook.

(5) Learn the tables from 6 to 10.

NOTE :-

1. Do the given exercises in your maths notebook. If not available you can use any old notebook or your previous school diary available at your home.

2. Before solving the exercises kindly go through the matter given in the pdf before that particular exercise.

3. Do not hurry in solving the exercises. First comprehend the questions carefully.

Thank you S

MathsWiz

A course in Mathematics

Book 2

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Preface

MathsWiz, a series of nine textbooks for KG to class 8, is a course based on the National Curriculum Framework and the guidelines provided therein.

The content of the series is student-centred and activity-based with emphasis on developing problem-solving skills, encouraging the child to think creatively and work independently. The methodology facilitates the teacher, the student and the parent to ensure full involvement of the child in the classroom and at home.

All the mathematical concepts are presented in a very simple and easy-to-understand form. The concepts are based on everyday life and daily experiences. The examples and problems also make use of modern tools, gadgets and technology commonly used. An abundant use of visual tools such as diagrams, illustrations, cartoons, tables and charts makes learning fun and helps in greater retention. The approach helps create passion for mathematics in children rather than fear for the subject. It encourages them to enquire, explore and discover rather than only learn by rote.

Each book of the series is accompanied by an interactive **student CD** to help concept-building by showing their application in daily life. The CD also supplements the book content through visuals, interactive practice and additional information.

Teacher's Manuals with extensive teaching ideas and solutions are also available separately.

Web-support includes interactive tests, worksheets, term-wise updated papers, unit-wise test papers to support classroom teaching.

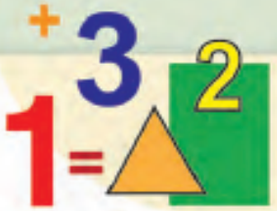
The salient features of the series are

- ***Warm Up*** for refreshing the concepts learnt earlier.
- ***Worksheets*** provide interactive and application-based activities.
- Extensive drilling, including ***Class Work***, ***MCQs***, with an integrated ***Chapter Test*** in each chapter.
- Term-wise ***Model Test Papers*** for better evaluation.
- ***Maths Lab Activities***, ***Fun Activities***, ***Projects*** etc. facilitate hands-on learning.
- ***Mental Maths*** to sharpen the mathematical skills.
- ***Higher Order Thinking Skills*** **(*HOTS*)** involves the learning of complex judgemental skills.
- ***Enrichment*** provides facts and encourages to think creatively.

We are thankful to the management and the editorial team of S. Chand And Company Pvt. Ltd., New Delhi, for help and support in the publication of the books of this series.

Suggestions and feedback for the improvement of this newly introduced series from the principals, teachers, students and parents would be most welcome. You may write in at **anubhutigangal@hotmail.com**

Authors



Contents

Special Features of the Series

To give a quick recap of the concepts learnt earlier in the form of questionnaires, activities, games etc.

Warm Up

To reinforce the understanding and help the child to master the new concepts

Class Work

To enhance analytical and problem solving skills

HOTS

1. I am a 2 digit number.
2. I am less than 50.
3. Count in sixes and there I am !
4. When you divide my tens digit by my ones digit you get 2. Who am I?

Designed as per the CBSE guidelines to develop conceptual understanding

Maths Lab Activity

Provides a cumulative assessment of understanding of the chapter content

Chapter Test

Tick (✓) the correct answer.

1. $\frac{5}{7}$ of 1 h 10 min is
(a) 55 min (b) 50 min (c) 40 min (d) 65 min
2. What time does the clock show?
(a) 5:07 (b) 5:35 (c) 7:05 (d) 7:24
3. Which one of the following is wrong?
(a) 2 h 15 min = 135 s (b) 3 h = 180 min
(c) 2 weeks 4 days = 18 days (d) 15 months = 1 year 3 months

Gives extension materials exposing the children to historical and new exploration of mathematics to widen their horizon of mathematical knowledge

Enrichment

Lattice Multiplication Method

Find the product of 27 and 34.

Step 1: Draw a grid (2 rows and 2 columns) as shown in (a). Write one factor on top and the other on the right as shown. Also draw the diagonals (shown in blue) thus completing the lattice as in (b).

To develop skills in rapid calculations

Mental Maths

Fill in the blanks and boxes:

1. 3 sixes = 2 _____
2. 9 times 8 + 8 = _____ tens
3. If ☐ = 6, then ☐☐ = _____ = 4 × _____
4. Write the next four numbers in the given skip counting pattern.
55 50 ☐☐ ☐☐
5. ☐ × 10 = 0
6. 9 × 9 = _____ ones

Creatively designed using the real-world scenarios involving practical applications and evaluation of knowledge and skills

Worksheet

1. Put the letters in each of the following in the correct order to get a number name and then write the number beside it.

	Number name	Number
(a) ENETNIEN		
(b) RYFOT-IFVE		
(c) RETHE		
(d) YWETNT		

Provides continuous reinforcement of previously studied concepts

Quick Review

1. Place value of 5 in 3750 is _____ .
2. Compare 4392 and 4932. Which is greater?
3. Write in standard form:
4000 + 30 + 9 = _____ .

To warn against the likely mistakes and misconceptions

Maths Alert !

Only equal parts make a fraction. A whole should be divided into equal parts to name fractions. The parts in the following pictures do not make fractions.

To deal with the life skills and values attained by the students like self-awareness, empathy, decision making, problem solving, interpersonal relationships, emotions etc.

Value Based Question

5. The money collected from the school winter carnival goes to an orphanage. For the carnival, 3 girls made quite a lot of effort and Divya sold 234 tickets, Kiran sold 169 tickets and Arpita sold 245 tickets. How many tickets did the 3 girls sell altogether? What moral value is shown by the girls?

[Value Based Question]

1 Looking Back

NUMBERS UP TO 100

Recall what you have learnt about numbers up to 100 by solving an exercise.

Vocabulary

- Ordinals
- Place Value
- Greater Than
- Less Than

EXERCISE 1A

1. Complete the number chart.

1	2		4						10
		13			16			19	
	22			25			28		
31						37			
	42								50
		53			56		58		
			64						
71								79	
				85					
91									100

2. Write the numerals for the following.

(a) Forty-seven 47

(b) Thirty-nine

(c) Ninety-nine

(d) Forty-four

(e) Sixty-five

(f) Seventy-two

3. Write the number names for the following.

(a) 27 Twenty-seven

(b) 98 _____

(c) 89 _____

(d) 76 _____

(e) 48 _____

(f) 57 _____

(g) 100 _____

(h) 64 _____

4. Write the missing numbers by counting forward.

(a) _____ 18 19 _____ _____ _____ _____ _____ _____

(b) _____ _____ _____ _____ 27 _____ _____ _____ _____

(c) _____ _____ 66 _____ _____ _____ _____ _____ _____

5. Fill in the blanks by counting backward.

(a) _____ 76 75 _____ _____ _____ _____ _____ _____

(b) _____ 43 42 _____ _____ _____ _____ _____ _____

(c) 92 _____ _____ _____ _____ _____ _____ _____ _____

6. Write the numbers just before and just after the given number.

(a) 17 18 19

(b) _____ 64 _____

(c) _____ 89 _____

(d) _____ 29 _____

(e) _____ 73 _____

(f) _____ 77 _____

(g) _____ 33 _____

(h) _____ 60 _____

(i) _____ 56 _____

7. Write the number that comes between the given numbers.

(a) 8 9 10 (b) 71 ___ 73 (c) 49 ___ 51

(d) 89 ___ 91 (e) 37 ___ 39 (f) 93 ___ 95

(g) 86 ___ 88 (h) 64 ___ 66 (i) 48 ___ 50

8. Write the correct numbers.

(a) 49 is just after ___ (b) 67 is just after ___

(c) 73 is just before ___ (d) 89 is just before ___

(e) 2 is between ___ and ___

9. Fill in the blanks by following the pattern.

(a)	7	9	11	13				
(b)	15	18	21	24				
(c)	71	75	79					

10. Write the numbers while counting by 2s.

(a)	4	6						
(b)	43	45						

11. Write the numbers while counting by 3s.

(a)	6	9						
(b)	31	34						

12. Fill in the boxes by skip counting in 5s.

(a)

3	8						

(b)

37	42						

13. Fill in the boxes by skip counting in 10s.

(a)

2	12						

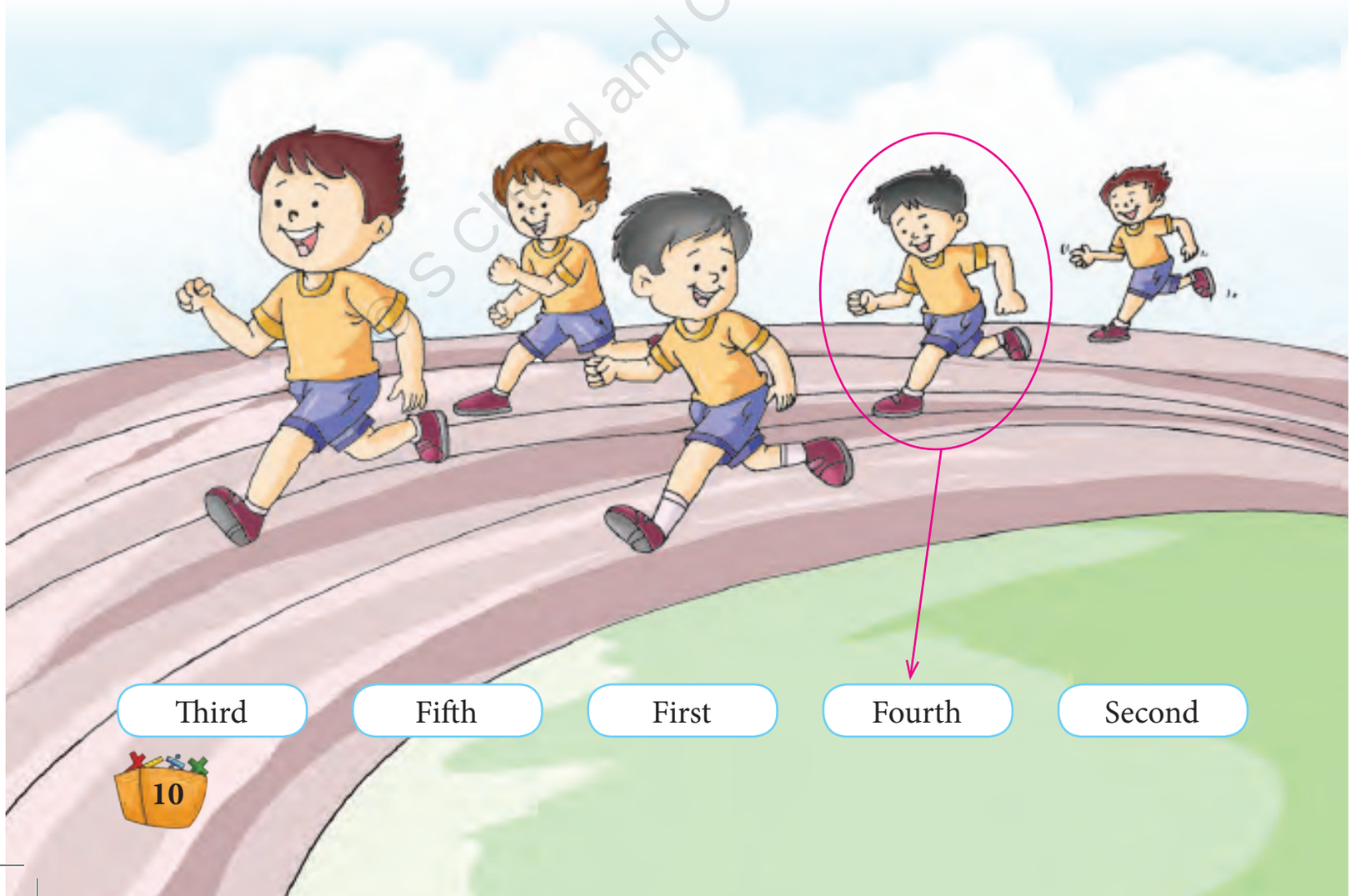
(b)

29	39						

ORDINAL NUMBERS

The pictures show the places won by children in a race.

Match correctly. One has been done for you.



EXERCISE 1B

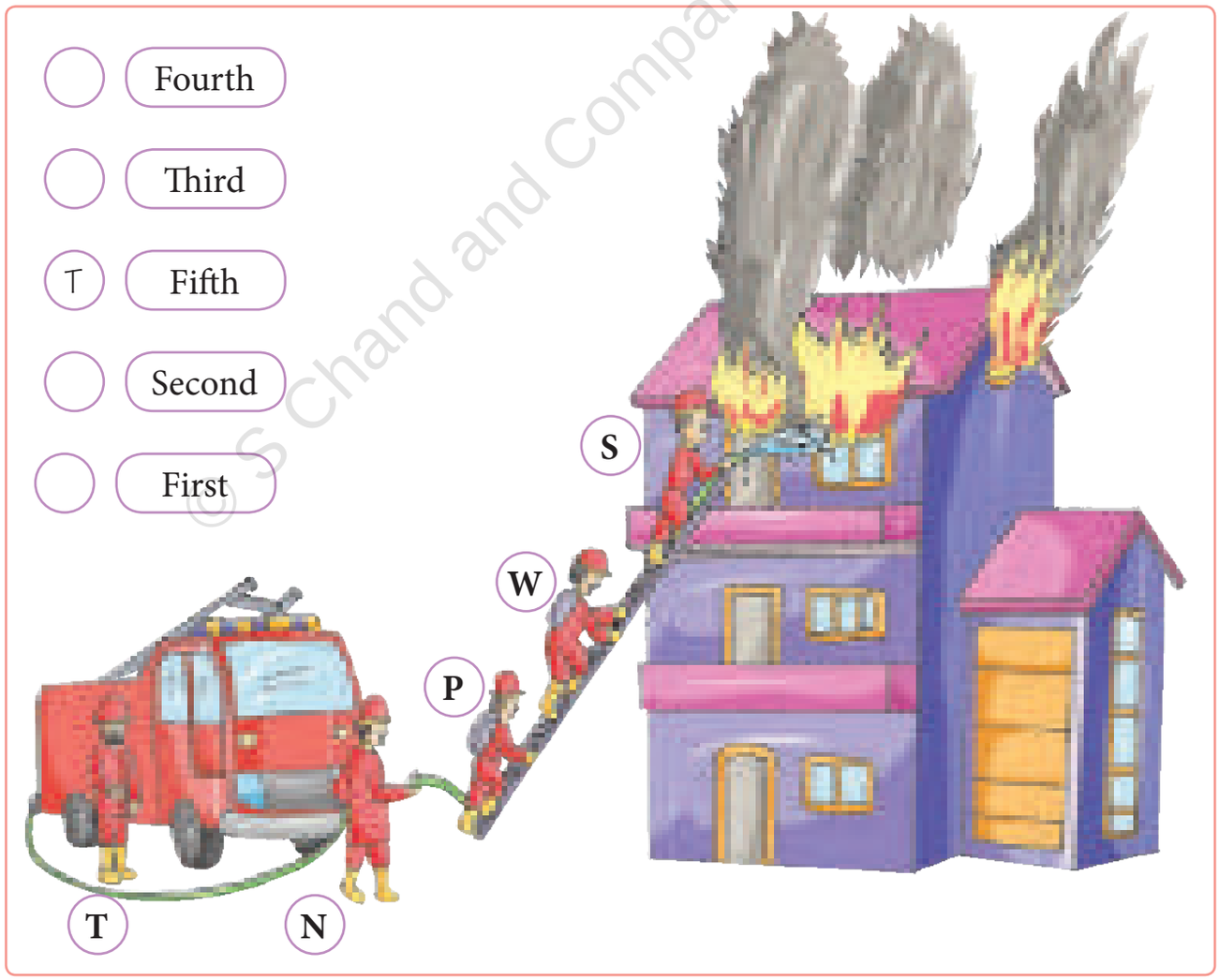
1. Write the days of the week in correct order.

Monday

First day | Second day | Third day | Fourth day

Fifth day | Sixth day | Seventh day

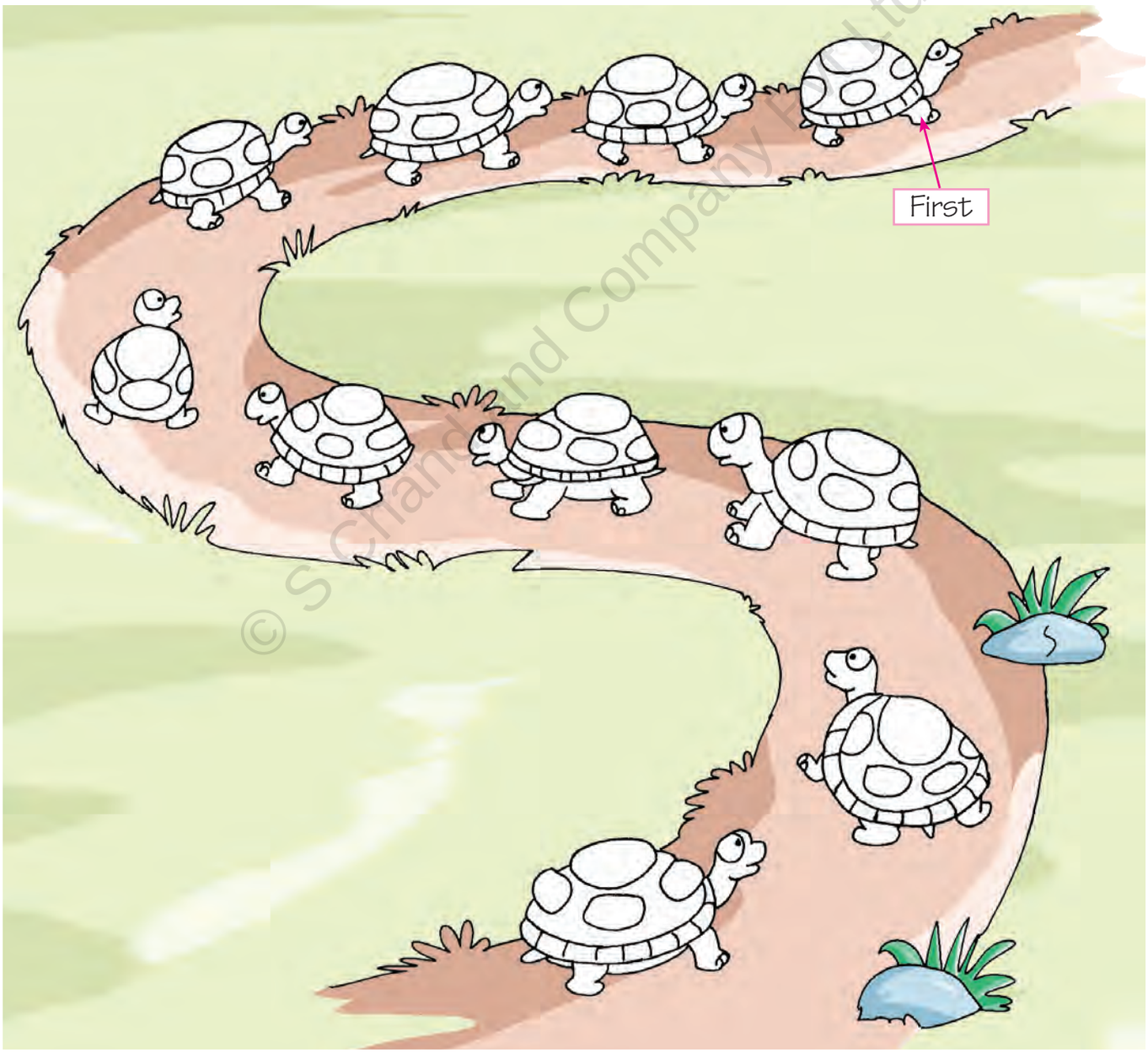
2. Write the letters corresponding to the firemen in the given circles.



Class Work

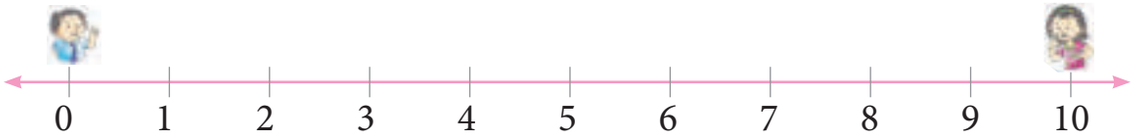
Colour the turtles using the given code.

First	Blue	Fifth	Purple
Seventh	Orange	Ninth	Yellow
Second	Green	Third	Red
Eighth	Black	Tenth	Pink
Fourth	White	Sixth	Brown



THE NUMBER LINE

Numbers can be shown on a line. Such a line is called a **number line**. The following number line shows numbers from 0 to 10.



How old are you? Ring the number which tells your age on the number line.

EXERCISE 1C

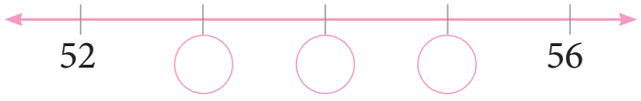
1. Write the missing numbers on the number line.

(a)

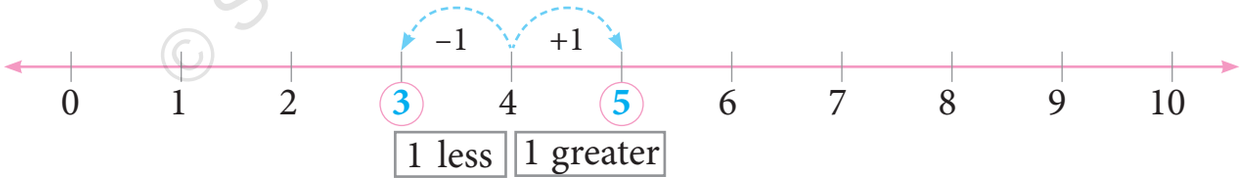
(b)

(c)

(d)



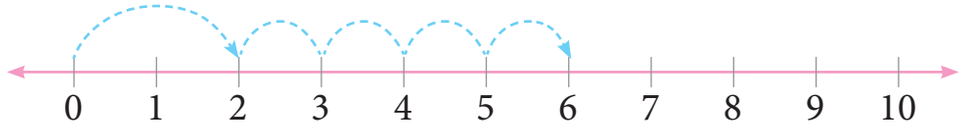
2. Complete the table.



1 greater	2 greater	1 less	2 less
2 → 3	15 →	21 → 20	39 →
25 →	98 →	67 →	99 →

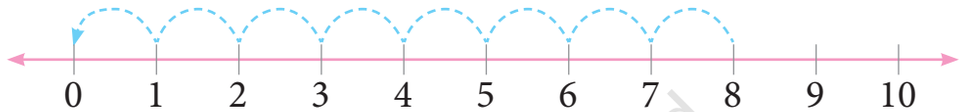
3. Add or subtract the following using the number line.

(a) 2 + 4 = 6



(b) 3 + 6 = ____

(c) 8 – 8 = 0



(d) 5 + 5 = ____

(e) 7 – 5 = ____

(f) 10 – 5 = ____

PATTERNS

Write the next term in the pattern. One has been done for you.

1. 7, 9, 11, 13, 15

2. 39, 38, 37, 36, _____

3. 15, 18, 21, 24, _____

4. 12, 21, 13, 31, 14, _____

5. A, AAB, AAAC, _____

6. ○, □, ○, □, ○, _____

PLACE VALUE

Tens and Ones

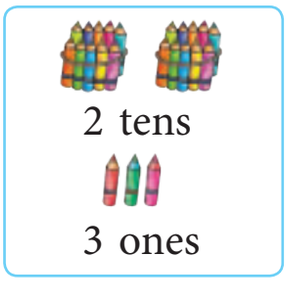
10 ones = 1 ten

Tens	Ones

Tens	Ones
1	0

Tens	Ones

Tens	Ones
1	8



Tens	Ones

Tens	Ones
2	3

EXERCISE 1D

1. Count and colour the tens and the ones. Also write the numbers.

(a)

Tens	Ones

Tens	Ones

(b)

Tens	Ones

Tens	Ones

(c)

Tens	Ones

Tens	Ones

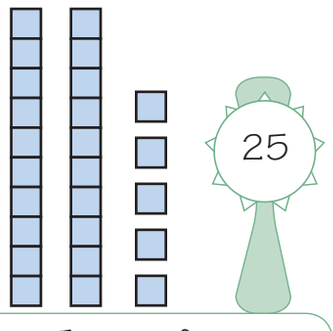
(d)

Tens	Ones

Tens	Ones

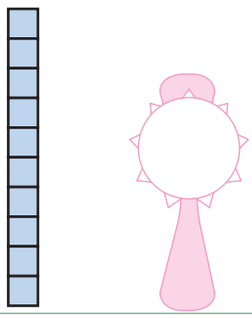
2. Write the numbers and number names represented by the blocks.

(a)

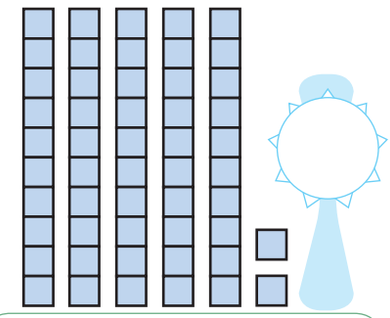


Twenty-five

(b)

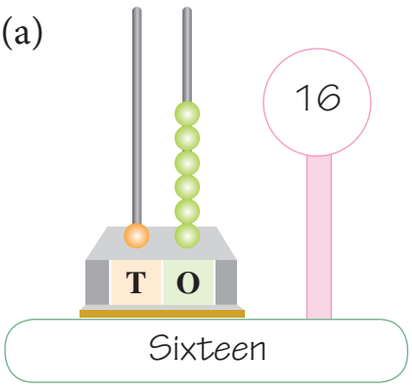


(c)

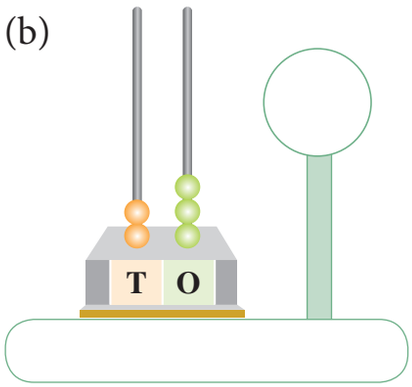


3. Write the numbers and number names shown on the abacus. One has been done for you.

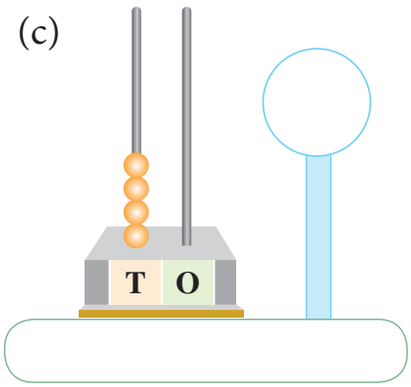
(a)



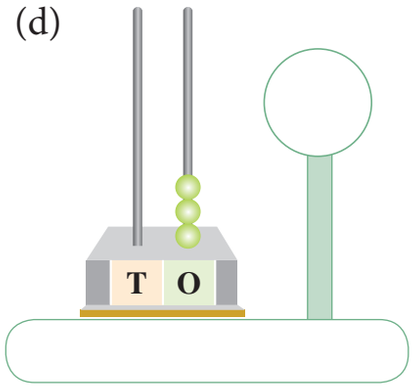
(b)



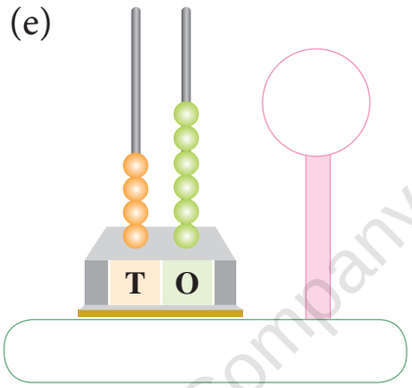
(c)



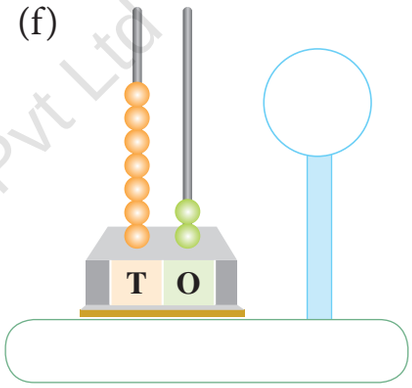
(d)



(e)

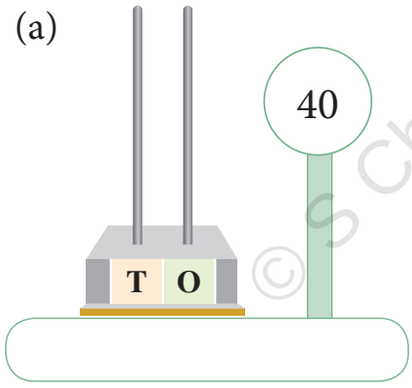


(f)

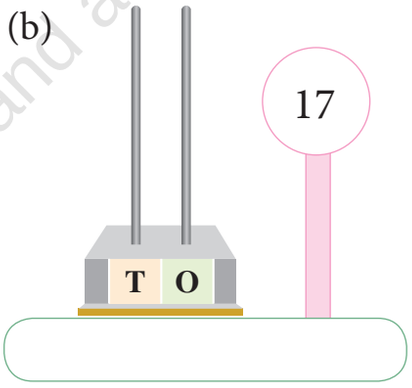


4. Draw the beads on the spikes of the abacus to show the number in the circle. Also write the number name.

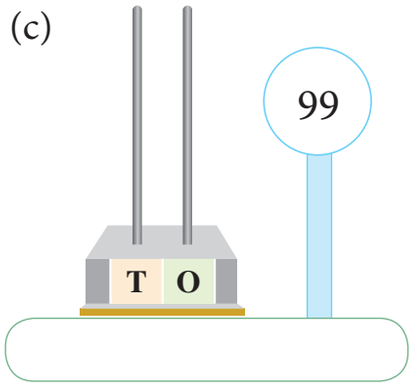
(a)



(b)



(c)



5. Write the number.

(a) 3 tens and 5 ones = 35

(b) 4 tens and 0 ones = ____

(c) 7 tens and 7 ones = ____

(d) 9 tens and 1 one = ____

EXPANDED FORM

Example: **Write 47 in the expanded form.**

Solution: 47 = 4 tens + 7 ones = 40 + 7

Thus, 47 = 40 + 7

Short form or Standard form

Expanded form

4	7
4 tens	7 ones
40	7

EXERCISE 1E

1. Write the numbers in expanded form.

(a) 99 = 90 + 9 (b) 56 = ◯ + ◯ (c) 77 = ◯ + ◯

(d) 19 = ◯ + ◯ (e) 38 = ◯ + ◯ (f) 67 = ◯ + ◯

2. Write in standard form.

(a) 20 + 3 = 23 (b) 40 + 7 = ◯ (c) 10 + 2 = ◯

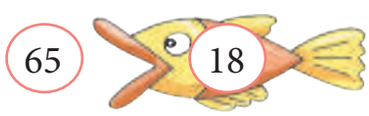
(d) 80 + 7 = ◯ (e) 50 + 8 = ◯ (f) 90 + 5 = ◯

COMPARING NUMBERS

Comparing two numbers means finding out whether one number is **greater than** or **less than** or **equal to** the other number.

We use the symbols >, <, = for showing greater than, less than and equal to respectively.

12 < 43



65 > 18

40 = 40

EXERCISE 1F

1. Fill in the circles with the symbols > or <.

(a) 76 ◯ 70 (b) 55 ◯ 52 (c) 64 ◯ 46

(d) 25 ◯ 53 (e) 41 ◯ 53 (f) 35 ◯ 25

2. Complete the table.

	Numbers	Least Number	Greatest Number
(a)	23, 44, 19, 84		
(b)	57, 92, 31, 89		

3. Write the following numbers in ascending and descending orders.

	Numbers	Ascending Order	Descending Order
(a)	39, 73, 59	39, 59, 73	73, 59, 39
(b)	75, 63, 87		
(c)	89, 98, 23, 75		
(d)	86, 100, 99, 76		

ADDITION AND SUBTRACTION

$$\begin{array}{r} 2\ 5 \\ +\ 2\ 3 \\ \hline 4\ 8 \end{array}$$ ← Sum

Hint: First, add the ones and then add the tens.

$$\begin{array}{r} 4\ 8 \\ -\ 2\ 5 \\ \hline 2\ 3 \end{array}$$ ← Difference

Hint: First, subtract the ones and then subtract the tens.

EXERCISE 1G

1. Add the following.

(a)
$$\begin{array}{r} 4\ 5 \\ +\ 2\ 2 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 5\ 4 \\ +\ 2\ 3 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 5\ 2 \\ +\ 4\ 7 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 2\ 6 \\ +\ 7\ 1 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 5\ 5 \\ +\ 2\ 4 \\ \hline \\ \hline \end{array}$$

2. Subtract the following.

(a)
$$\begin{array}{r} 8\ 7 \\ -\ 7\ 3 \\ \hline \\ \hline \end{array}$$

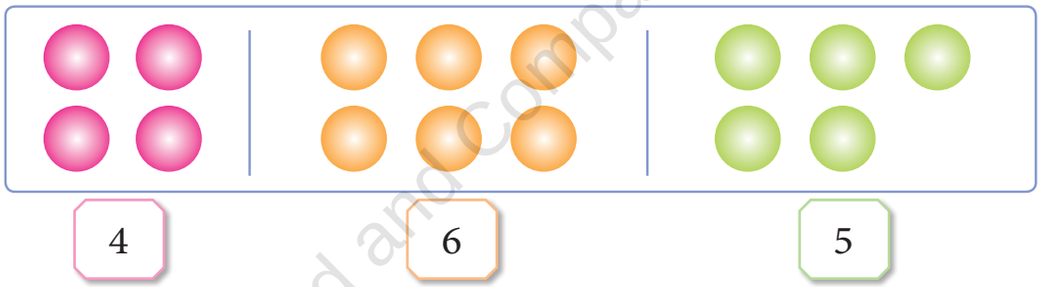
(b)
$$\begin{array}{r} 5\ 6 \\ -\ 2\ 4 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 8\ 8 \\ -\ 8\ 2 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 3\ 6 \\ -\ 1\ 3 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 5\ 6 \\ -\ 5\ 3 \\ \hline \\ \hline \end{array}$$

ADDING THREE NUMBERS



4 6 5

Here are 2 ways to add above 3 numbers.

Add these first.

(4 + 6) + 5 = 10 + 5 = 15

Add these first.

4 + **(6 + 5)** = 4 + 11 = 15

EXERCISE 1H

1. Fill in the boxes.

(a) (2 + 3) + 1 = ☐ + 1 = ☐ 2 + (3 + 1) = 2 + ☐ = ☐

(b) (5 + 2) + 3 = ☐ + 3 = ☐ 5 + (2 + 3) = ☐ + ☐ = ☐

2. Group and then add.

(a) 7, 4, + 3 = ____

(b) 6, 4, + 9 = ____

(c) 1, 9, + 4 = ____

(d) 6, 5, + 6 = ____

(e) 6, 5, + 4 = ____

(f) 7, 0, + 8 = ____

(g) 3, 2, + 2 = ____

(h) 8, 8, + 1 = ____

ADDITION (With Carrying)

Tens	Ones
//// // /	/////// /// ////
7	3

T	O
(1)	
4	7
+ 2	6
7	3

Step 1: **Add the ones.** 7 + 6 = 13 = 1 ten + 3 ones

Step 2: Carry 1 ten to the tens column as shown.

Step 3: **Add the tens.**
4 tens + 2 tens + 1 ten (carry over) = 7 tens

EXERCISE 1I

Find the sum. One has been done for you.

1.

T	O
3	5
+ 4	8
8	3

2.

T	O
4	9
+ 4	1

3.

T	O
3	4
+ 2	7

4.

T	O
5	6
+ 3	9

5.

T	O
1	8
+ 4	7

6.

T	O
3	3
+ 3	9

7.

T	O
2	7
+ 6	6

8.

T	O
3	7
+ 3	8

9.

T	O
3	4
+ 4	9

10.

T	O
4	3
+ 4	9

SUBTRACTION (With Borrowing)

	T	O
	4	2
–	2	7
	1	5

Borrow 1 ten

4 tens 2 ones =	3 tens	12 ones
– 2 tens 7 ones =	– 2 tens	7 ones
	1 ten	5 ones

Hint: 1 ten borrowed from 4 tens is 3 tens and 10 ones:
Now, 10 ones + 2 ones is 12 ones.

Tens	Ones	
/// //	////////// ///////	3 12 10 4 2 – 2 7 1 5
1	5	

Borrow 1 ten and take to the ones column.

EXERCISE 1J

1. Subtract the following. One has been done for you.

(a)

T	O
3	17
~~4~~	~~7~~
– 2	8
1	9

(b)

T	O
8	0
– 6	1

(c)

T	O
6	1
– 2	7

(d)

T	O
9	5
– 3	9

(e)

T	O
9	5
– 7	7

(f)

T	O
7	2
– 2	9

(g)

T	O
9	3
–	6

(h)

T	O
8	2
– 4	6

(i)

T	O
5	0
– 1	3

(j)

T	O
9	1
– 5	5

2. Solve the following word problems.

Workspace

(a) Eight birds sat on a wire. Three flew away. How many were left?

Answer: 5 birds

8 – 3 = 5

(b)

Three boys were playing football. Two more boys came along and played football with them. How many boys in all were playing football?

Answer: ____ boys

(c) Sanjay had 7 rupees. He spent 4 rupees. How many rupees are left with him?

Answer: ____ rupees

(d)

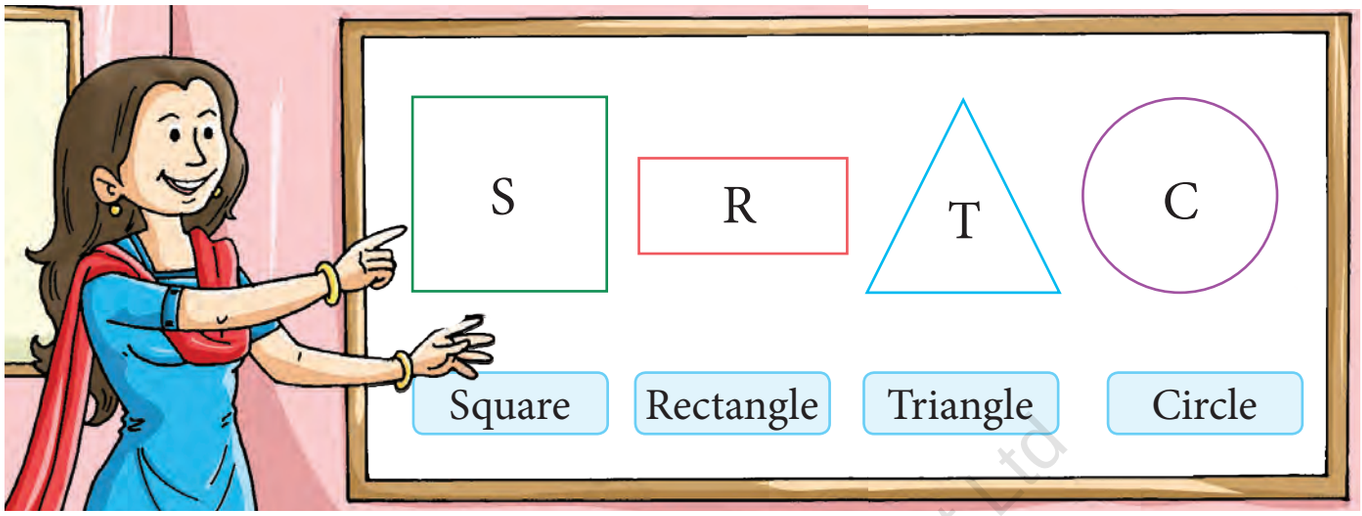
Ashok had 4 books on the table, 5 in his bag and 7 on the shelf. How many books did he have in all?

Answer: ____ books

(e) Sarita had 45 sweets. She gave away 19 sweets. How many sweets were left with her?

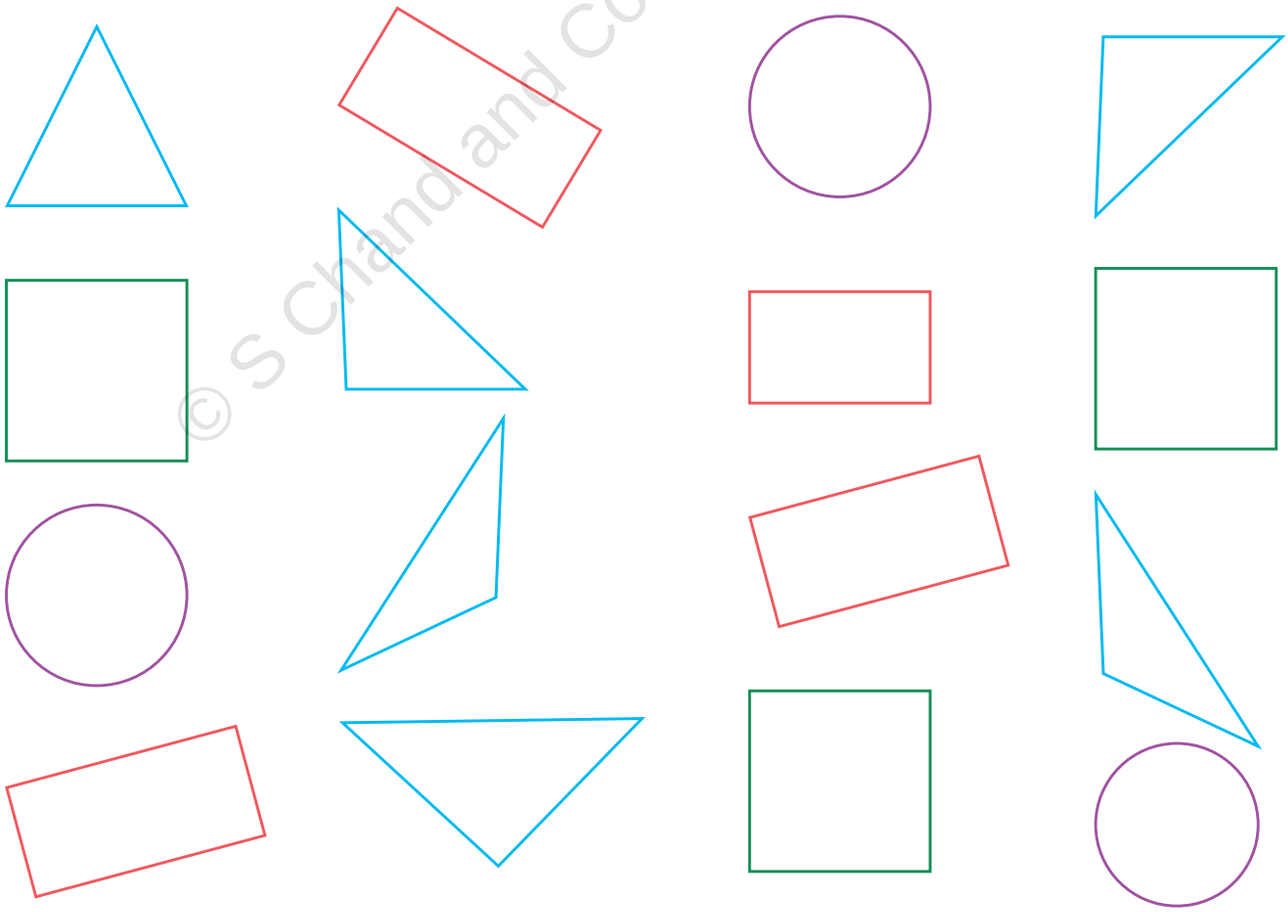
Answer: ____ sweets

GEOMETRICAL SHAPES



EXERCISE 1K

1. Write S for square, R for rectangle, T for triangle or C for circle in each figure.



2. Draw a line

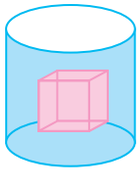
(a) to make the rectangle into 2 squares.

(b) to make the square into 2 rectangles.

(c) to make the rectangle into 2 triangles.

3. Write the names of the two solid shapes in each picture.

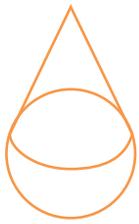
(a)



_____

_____

(b)



_____

_____

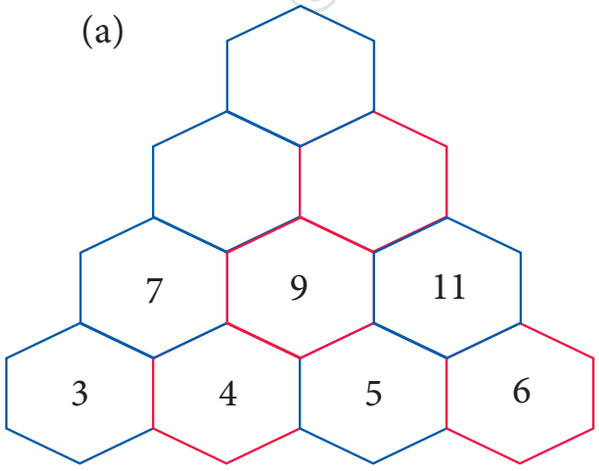
4. Tick (✓) the solids which do not roll.

(a) sphere ◯ (b) cylinder ◯ (c) cube ◯ (d) None ◯

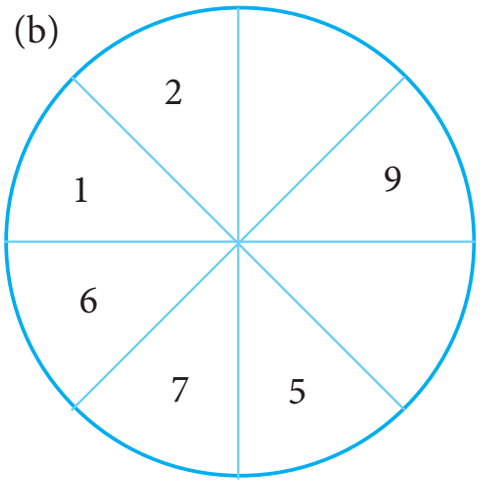
FUN WITH NUMBERS

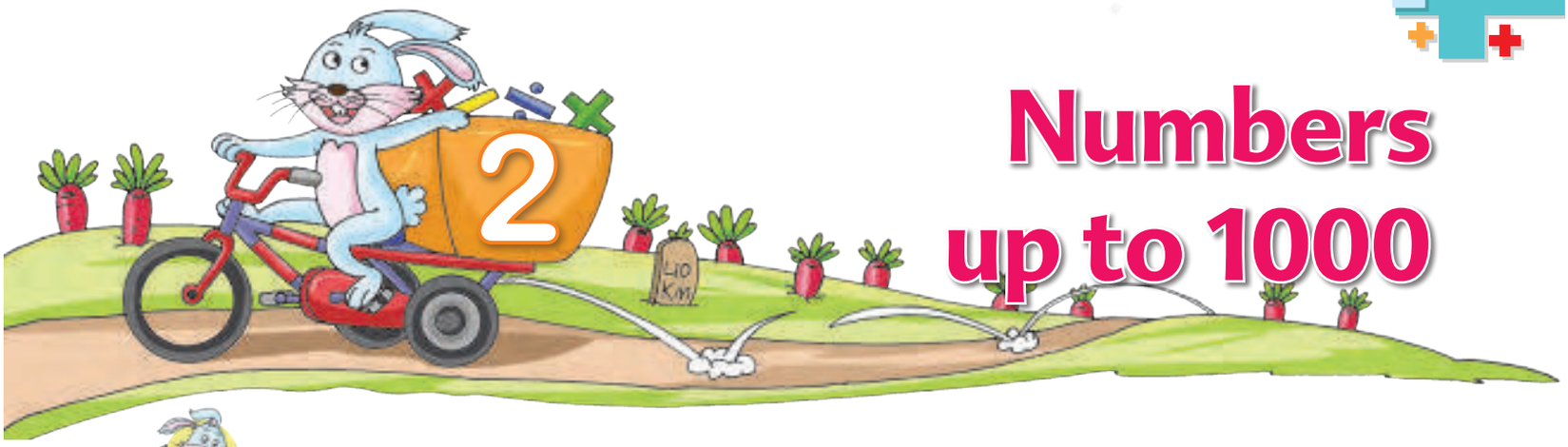
Find a pattern and write the missing numbers.

(a)



(b)





2 Numbers up to 1000

Warm Up

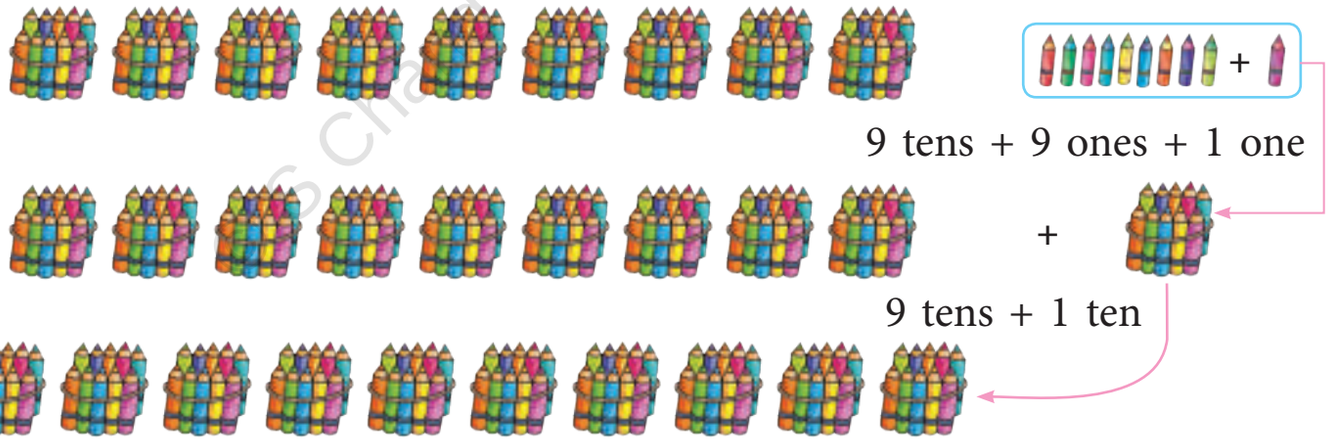
In class 1, we have learnt 1- and 2-digit numbers. Every number is 1 greater than the number before it. We have also learnt that ninety-nine is the greatest 2-digit number. It is written as 99.

In our number system, we group by tens. In a number with two numerals, the numeral on the left tells the number of tens and the numeral on the right tells the number of ones. Thus, 99 means 9 tens and 9 ones.

1 more than 99 or 99 + 1 is **100.**

It is read as one hundred.

Pictorially, 100 is shown as below:

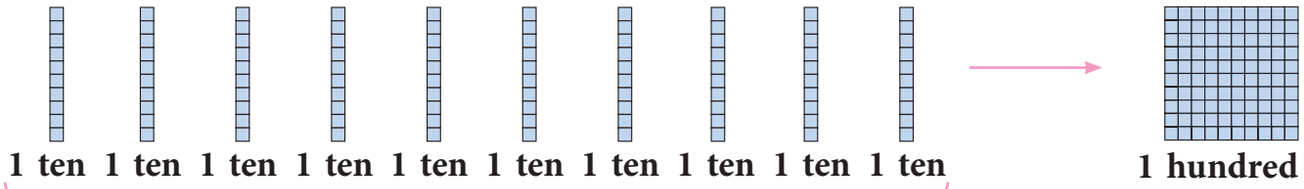


Can you tell how many tens make 100?

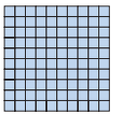
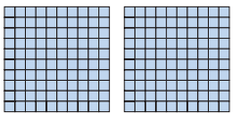
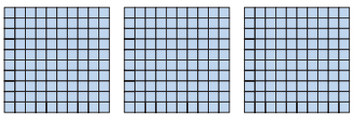
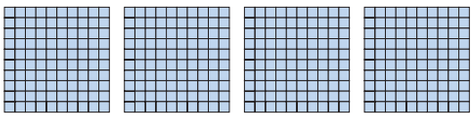
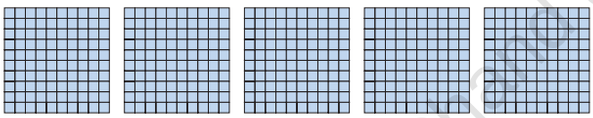
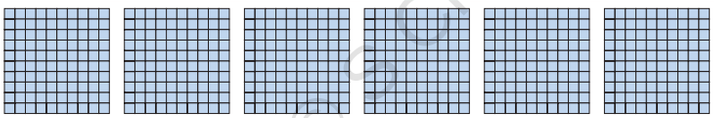
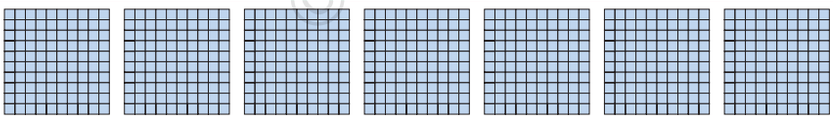
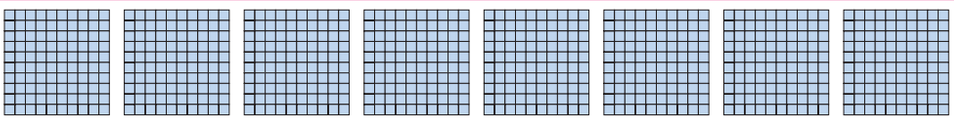
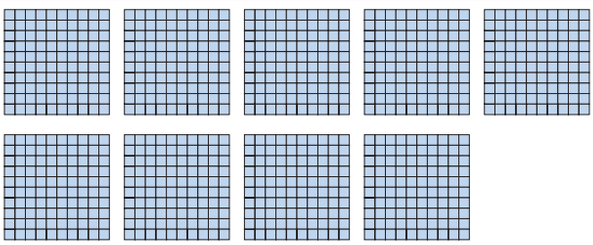
Yes, 10 tens make 100. I also know 100 is the first 3-digit number.

COUNTING IN HUNDREDS

Observe the following.



10 tens = 1 hundred

Hundreds	We write	We say
	100	One hundred
	200	Two hundred
	300	Three hundred
	400	Four hundred
	500	Five hundred
	600	Six hundred
	700	Seven hundred
	800	Eight hundred
	900	Nine hundred

EXERCISE 2A

1. Write the number.

(a) 10 tens = ☐ hundred = ☐

(b) 20 tens = 2 hundreds = 200

(c) 30 tens = ☐ hundreds = ☐

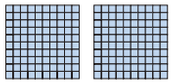
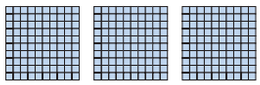
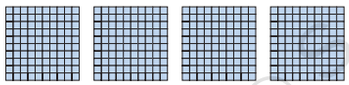
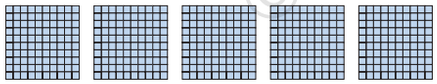
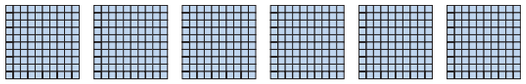
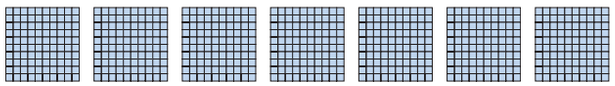
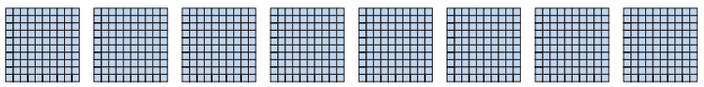
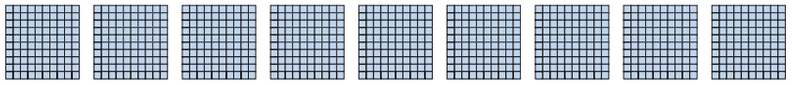
(d) 40 tens = ☐ hundreds = ☐

(e) 50 tens = ☐ hundreds = ☐

(f) 60 tens = ☐ hundreds = ☐

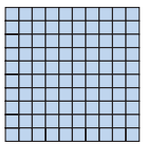
(g) 70 tens = ☐ hundreds = ☐

2. Write the numerals and number names for the following.

Hundreds	Numeral	Number Name
	100	One hundred
		
		
		
		
		
		
		
		

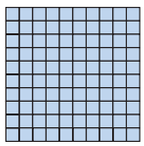
BUILDING NUMBERS UP TO 199

Observe the following.



Hundreds	Tens	Ones
1	0	1

101



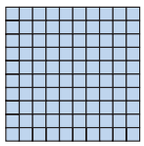
Hundreds	Tens	Ones
1	0	2

102

Class Work

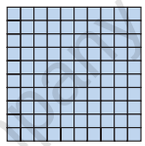
Count and write the numbers. Also read the numbers aloud.

(a)



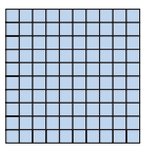
Hundreds	Tens	Ones

(b)



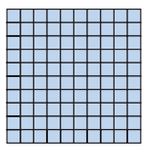
Hundreds	Tens	Ones

(c)



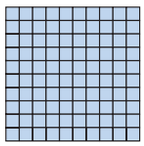
Hundreds	Tens	Ones

(d)



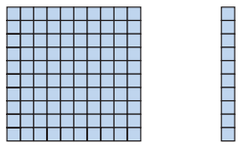
Hundreds	Tens	Ones

(e)



Hundreds	Tens	Ones

(f)

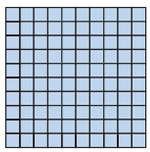


Hundreds	Tens	Ones
1	1	0

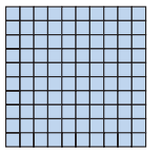
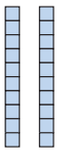
110

Hundreds, Tens and Ones

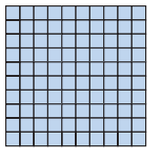
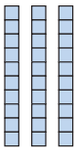
Count and fill in the boxes.



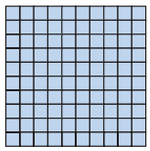
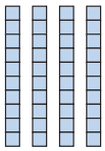
1 hundred 1 ten 4 ones = 114 **One hundred fourteen**

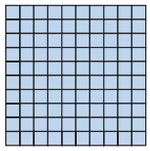
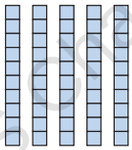

hundred tens ones = 127 **One hundred twenty-seven**

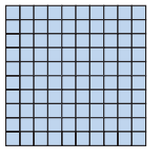
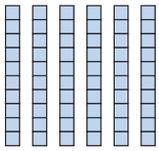

hundred tens ones = 132 **One hundred thirty-two**

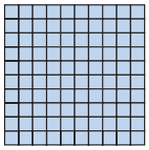
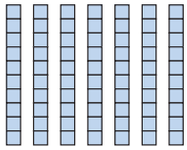

hundred tens ones = 145 **One hundred forty-five**


hundred tens ones = 158 **One hundred fifty-eight**


hundred tens one = 161 **One hundred sixty-one**


hundred tens ones = 173 **One hundred seventy-three**

EXERCISE 2B

1. Write the numerals.

(a) One hundred five

(b) One hundred eighty-two

(c) One hundred ten

(d) One hundred ninety

(e) One hundred eighteen 118

(f) One hundred ninety-four

(g) One hundred fifty-two

(h) One hundred forty-nine

(i) One hundred sixty-five

(j) One hundred ninety-nine

2. Write the number names.

(a) 115 One hundred fifteen

(b) 107

(c) 127

(d) 106

(e) 134

(f) 155

(g) 162

(h) 181

(i) 178

(j) 125

3. Complete the table.

100		102	103		105				109
110		112					117		
120		122						128	
	131			134				138	
140									149
		152			155			158	
	161						167		
	171	172							179
180									
190	191				195				199

4. Write the missing numerals.

(a) 114, 115, _____, _____, _____, _____, _____

(b) 178, 179, _____, _____, _____, _____, _____

(c) 199, 198, _____, _____, _____, _____, _____

(d) 101, 103, _____, _____, _____, _____, _____

(e) 140, 130, _____, _____, _____, _____, _____

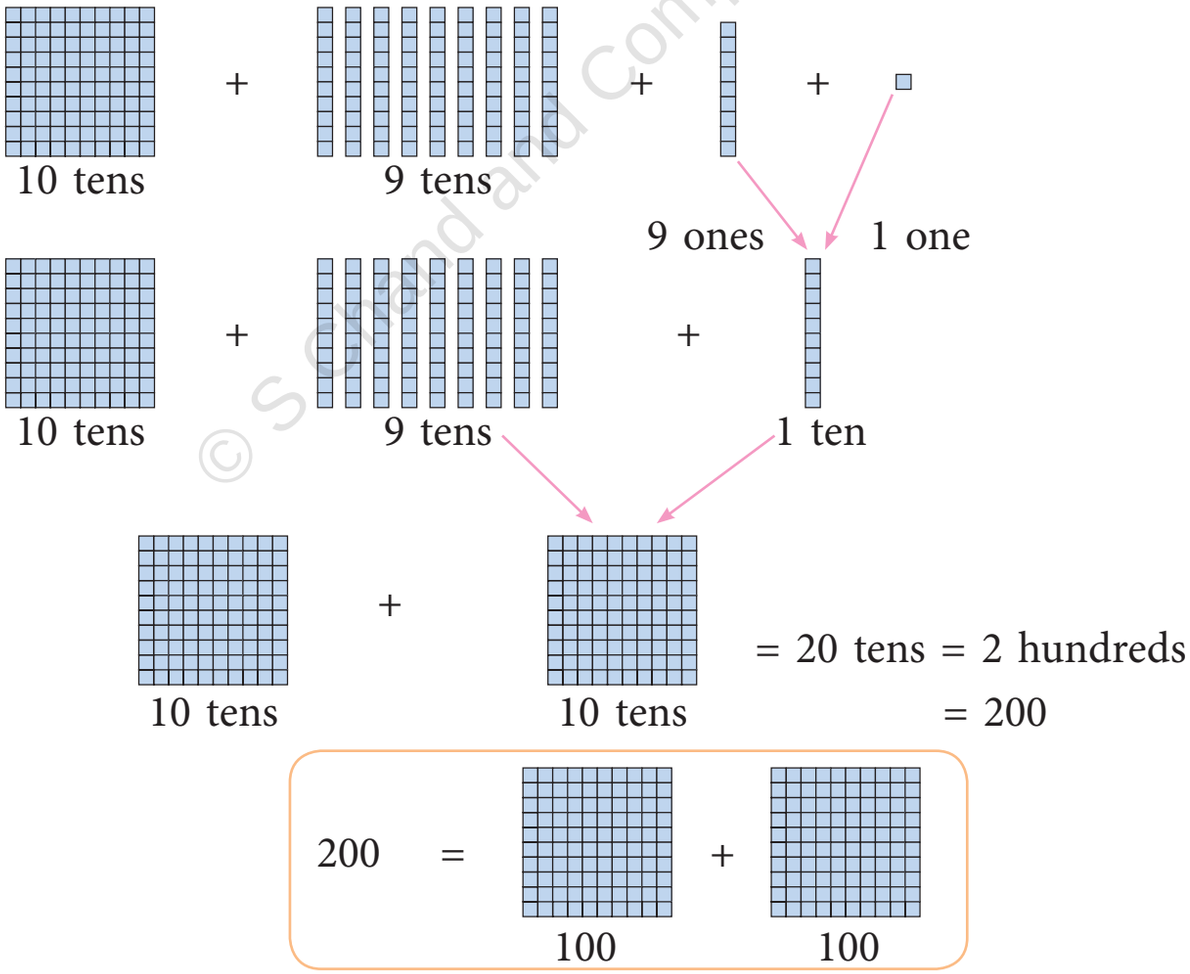
NUMBERS FROM 200 TO 1000

In the earlier section of the chapter, we have learnt 3-digit numbers up to 199.

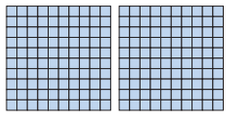
199 means 19 groups of tens and 9 more.

1 more than 199 is given the name **two hundred**. We write this as **200.**

Pictorially, 200 is shown as under.

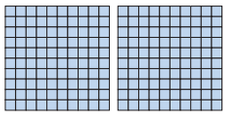


Numbers after 200 are formed as follows.



Hundreds	Tens	Ones
2	0	1

201



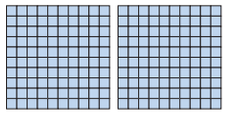
Hundreds	Tens	Ones
2	0	2

202 and so on

Class Work

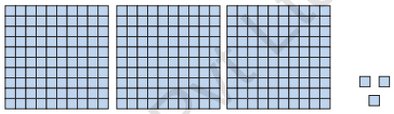
Count and write the numbers.

(a)



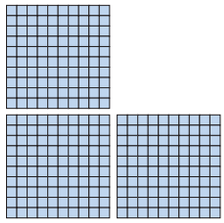
Hundreds	Tens	Ones

(b)



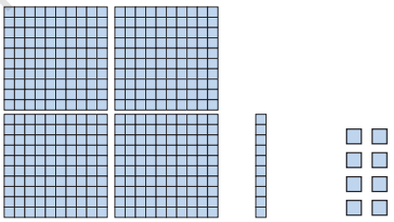
Hundreds	Tens	Ones

(c)



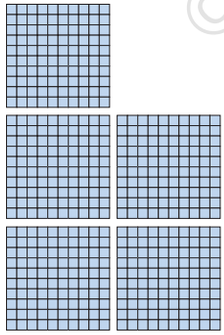
Hundreds	Tens	Ones

(d)



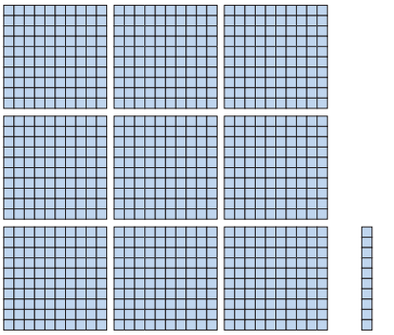
Hundreds	Tens	Ones

(e)



Hundreds	Tens	Ones

(f)

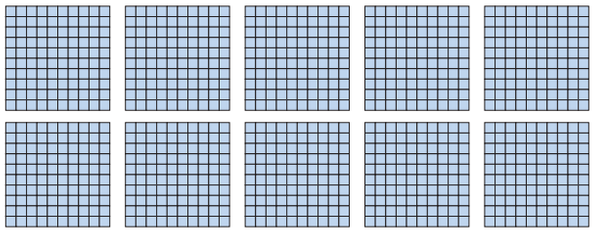


Hundreds	Tens	Ones

THE NUMBER 1000

One more than 999 is 1000. It is a 4-digit number and is equal to 10 hundreds, or 100 tens.

The number name for 1000 is one thousand.



10 hundreds = 1000

EXERCISE 2C

1. Write the numbers in order from 201–300.

201	202				206				210
211									
231			234						
						247			
	252								
				265					
	272						278		280
281									
									300

2. Write the number of hundreds, tens, and ones for each number.

(a) 200 = hundreds tens ones

(b) 204 = hundreds tens ones

(c) 310 = hundreds ten ones

(d) 471 = hundreds tens one

(e) 535 = hundreds tens ones

(f) 240 = hundreds tens ones

(g) 651 = hundreds tens one

(h) 759 = hundreds tens ones

(i) 868 = hundreds tens ones

(j) 570 = hundreds tens ones

(k) 975 = hundreds tens ones

(l) 387 = hundreds tens ones

(m) 491 = hundreds tens one

(n) 699 = hundreds tens ones

(o) 700 = hundreds tens ones

3. Write the numbers from 301–400.

301						307			
		313							
	322								
				335					
									350
								369	
					376				
							388		
								399	

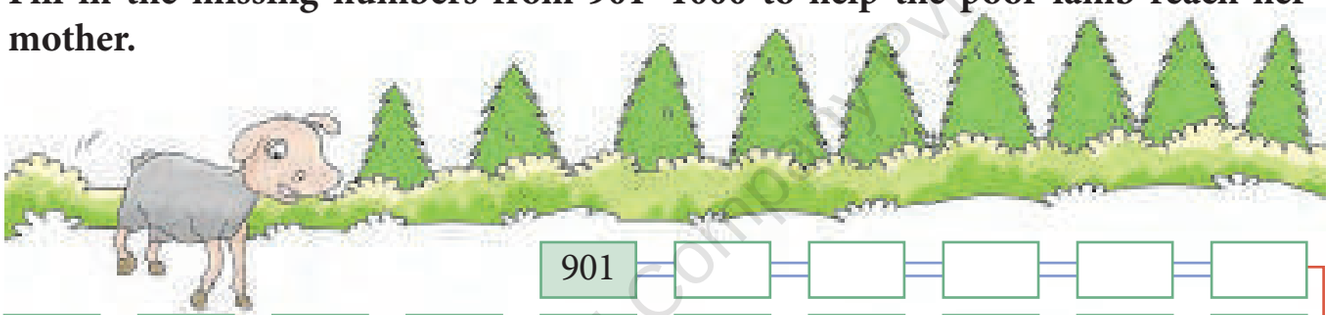
4. Write the numbers from 701–760.

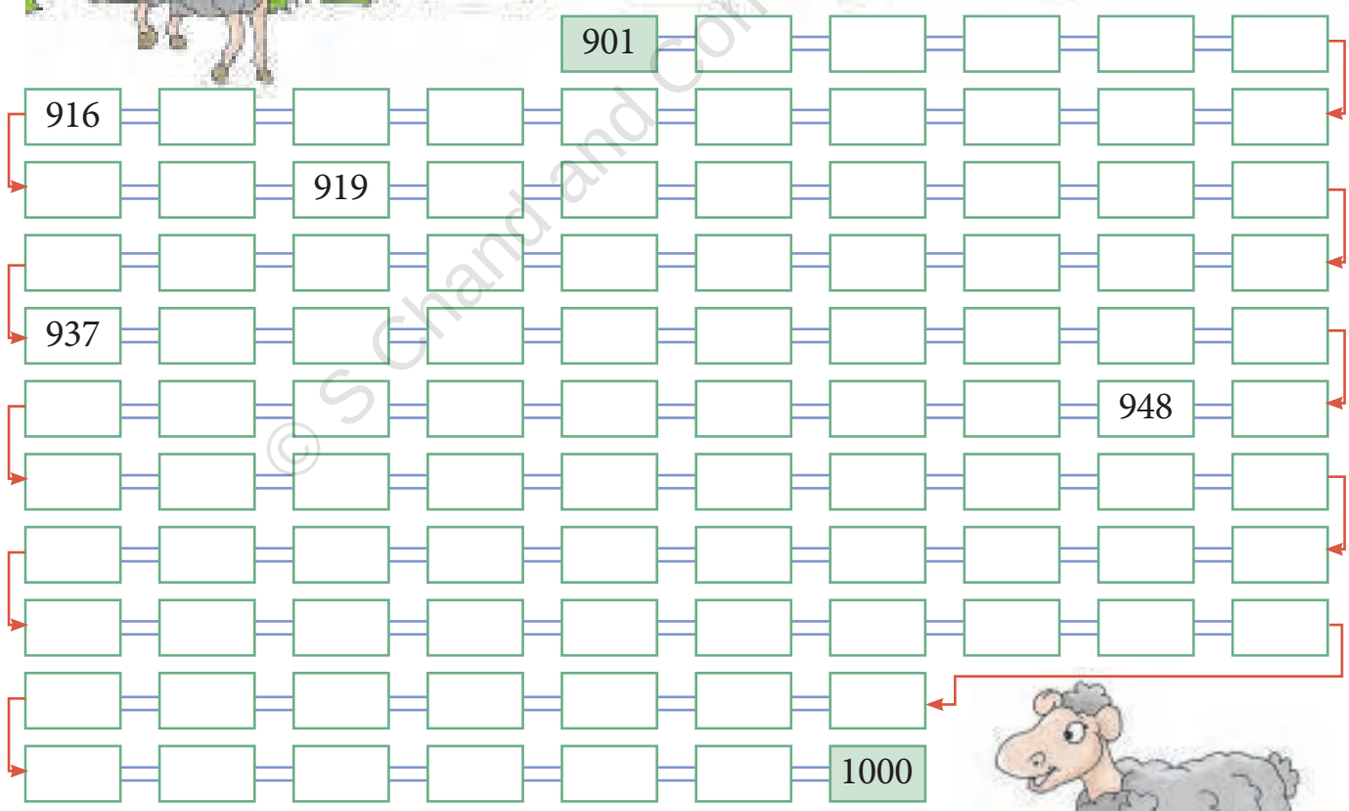
									710
711									
								739	
	752								

5. Write the numbers from 851–900.

	852								
				875					
								889	
									900

6. Fill in the missing numbers from 901–1000 to help the poor lamb reach her mother.





Did you ever help someone on the way? Express your thoughts on the following.

It is a good deed to help someone in need.

NUMBER NAMES

H	T	O
2	1	3

Two hundred Thirteen

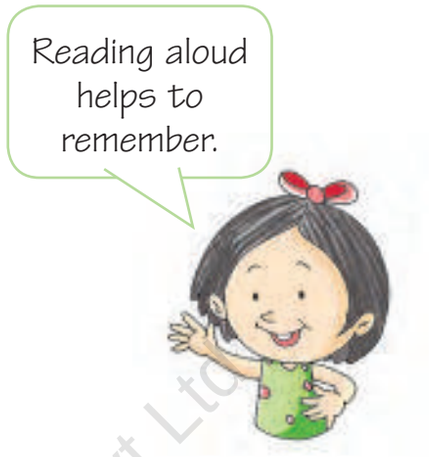
213 is read as "two hundred thirteen".

Similarly,

356 is read as "three hundred fifty-six".

760 is read as "seven hundred sixty".

999 is read as "nine hundred ninety-nine".



EXERCISE 2D

1. Write the numerals.

(a) Two hundred thirty-five 235

(b) Three hundred seventy-one

(c) Five hundred seven

(d) Eight hundred ninety-nine

(e) Two hundred sixty-seven

(f) Four hundred fifty-five

(g) Six hundred eighty-two

(h) Nine hundred twenty-eight

2. Write the number names.

(a) 217 _____

(b) 325 _____

(c) 832 _____

(d) 416 _____

(e) 702 _____

(f) 900 _____

(g) 675 _____

(h) 867 _____

(i) 589 _____

(j) 619 _____

3. Match the numeral with its number name.

(a)	963	(i)	Four hundred twenty-five
(b)	797	(ii)	Six hundred seventy-two
(c)	425	(iii)	Nine hundred eighty-nine
(d)	672	(iv)	Nine hundred sixty-three
(e)	399	(v)	Eight hundred ninety-eight
(f)	989	(vi)	Seven hundred ninety-seven
(g)	898	(vii)	Three hundred ninety-nine

4. Write the number just before...

(a) 153 154 (b) ☐ 765 (c) ☐ 813 (d) ☐ 359

5. Write the number just after...

(a) 154 155 (b) 623 ☐ (c) 593 ☐ (d) 789 ☐

6. Write the hundred just before and after the given number.

(a) ◯ 154 ◯ (b) 700 786 800

(c) ◯ 436 ◯ (d) ◯ 289 ◯

7. Write the ten just before and after the given number.

(a) ◯ 156 ◯ (b) ◯ 748 ◯

(c) ◯ 400 ◯ (d) 620 623 630

8. Write the number or numbers between the given numbers.

(a) 278 and 280 ☐

(b) 451 and 454 ☐ ☐

(c) 798 and 800 ☐

(d) 648 and 651 ☐ ☐

(e) 629 and 635 ☐ ☐ ☐ ☐ ☐

(f) 864 and 870 ☐ ☐ ☐ ☐ ☐

PLACE VALUE AND FACE VALUE

- The face value of a digit is its actual value.
- The place value of a digit depends upon its place in the number.

Consider the number 684.

H	T	O
6	8	4

The digit 4 is at the ones place.
The place value of 4 is 4 ones = 4
The face value of 4 is 4.

The digit 8 is at the tens place.
The place value of 8 is 8 tens = 80
The face value of 8 is 8.

The digit 6 is at the hundreds place.
The place value of 6 is 6 hundreds = 600
The face value of 6 is 6.

Face value of a digit in a number never changes whereas its place value changes with the place.

EXERCISE 2E

1. Write the place value of each encircled digit.

(a) 4 (3) 6 _____ (b) (3) 3 7 _____ (c) 8 9 (3) _____

(d) (3) 1 5 _____ (e) 2 4 (3) _____ (f) (3) 8 7 _____

2. Fill in the blanks.

(a) In 183, the place value of 8 is _____, the face value of 8 is _____.

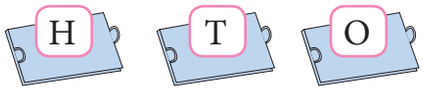
(b) In 254, the place value of 2 is _____, the face value of 2 is _____.

(c) The face value and place value of a digit in a number is the same at _____ place.

(d) The sum of the place value and face value of 5 in 154 is _____.

Maths Lab Activity (Teacher to Assist)

The teacher will take 3 to 4 sets of 3 boxes or trays. Now, he/she will put two of three open boxes or trays on a table.



The trays on each set have to be marked with letters H(hundreds), T(tens) and O(ones). Besides each set of boxes or trays the teacher should have a set of 30 buttons or counters of same colour. A set of 30 different coloured buttons can be used for the other set.

Now divide the children into two equal groups.

Turn by turn call one pair of students, one from each group. Give each of them different 3-digit numbers in word form say 215 and 407.

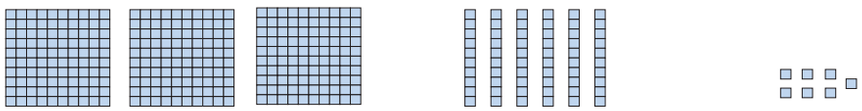
Each child according to the number given to him/her has to put correct number of buttons in the correct box.

For 215, 2 buttons in H tray, 1 in T tray and 5 in O tray. Similarly, the other child at the same time, puts 4 buttons in H tray, 0 in T tray and 7 in O tray. Give 10 seconds or whatever time the teacher decides to each pair. Repeat this for another pair and so on and so forth till all the children have got a chance. The team with the greater number of correct entries wins the game.

EXPANDED FORM

There were 367 visitors for the school exhibition today.

The number 367 can be represented with blocks and by the place value chart as shown below:



Hundreds	Tens	Ones
3	6	7

So, 367 = 3 hundreds + 6 tens + 7 ones
= 300 + 60 + 7
Thus, the number 367 can be written in different ways as:
Standard form: 367
Expanded form: 300 + 60 + 7
Word form: Three hundred sixty-seven.

EXERCISE 2F

1. Write the number of hundreds, tens and ones for each number and hence write each number in expanded form.

	Number	Hundreds	Tens	Ones	Expanded form
(a)	256	2	5	6	200 + 50 + 6
(b)	327				
(c)	473				
(d)	789				
(e)	807				

2. Complete the table with the help of the first row.

	Word form	Columns			Expanded form	Standard form
		H	T	O		
(a)	Three hundred twenty-five	3	2	5	300 + 20 + 5	325
(b)	Six hundred twelve					
(c)	Two hundred thirty-six					
(d)						456
(e)						661

3. Write the following in standard form.

(a) 200 + 30 + 1 = _____
(b) 900 + 10 + 7 = _____
(c) 500 + 40 + 9 = _____
(d) 800 + 20 + 6 = _____
(e) 400 + 70 + 3 = _____
(f) 700 + 30 + 3 = _____
(g) 300 + 0 + 4 = _____
(h) 200 + 30 + 0 = _____

4. Write the following in expanded form.

(a) 365 = _____ + _____ + _____

(b) 248 = _____ + _____ + _____

(c) 827 = _____ + _____ + _____

(d) 980 = _____ + _____ + _____

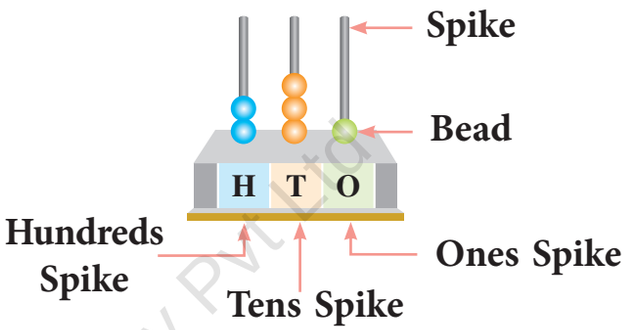
(e) 405 = _____ + _____ + _____

(f) 319 = _____ + _____ + _____

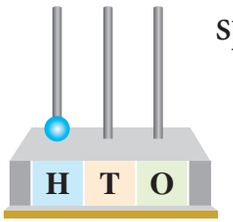
THREE-DIGIT NUMBERS ON ABACUS

A spike abacus is a tool that has beads which slide on rods (called spikes).

Each spike represents a different place value. From right to left, the place value of the spikes increases in order from ones to tens to hundreds and so on.



Example: **Count the number of beads on the spike at each place and write the number.**

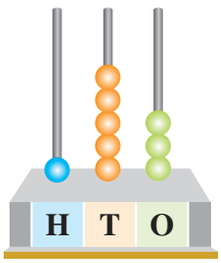


There is one bead at the hundreds spike, zero bead at the tens spike and zero bead at the ones spike. So, the abacus represents

1 hundred + 0 tens + 0 ones = 100

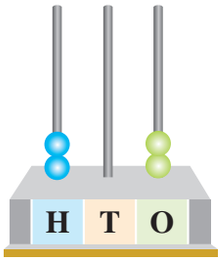
One hundred

Now, observe the following.



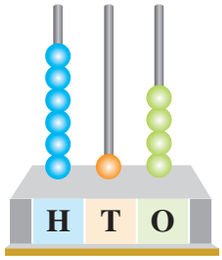
1 hundred + 5 tens + 3 ones = 153

One hundred fifty-three



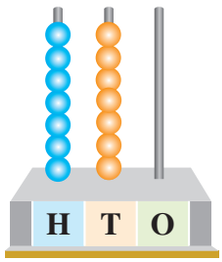
2 hundreds + 0 tens + 2 ones = 202

Two hundred two



6 hundreds + 1 ten + 4 ones = 614

Six hundred fourteen



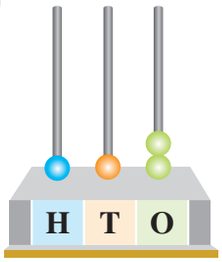
7 hundreds + 7 tens + 0 ones = 770

Seven hundred seventy

EXERCISE 2G

1. Count the number of beads at each place and write the number shown by the spike abacus in standard form and in word form.

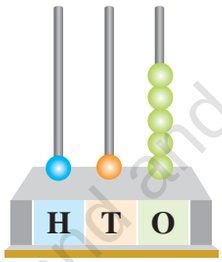
(a)



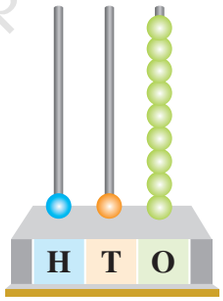
112

One hundred twelve

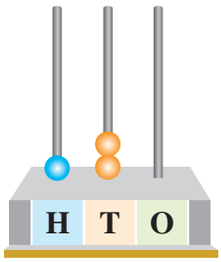
(b)



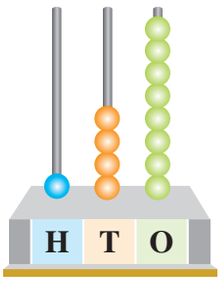
(c)



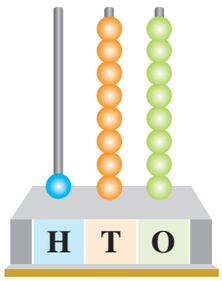
(d)



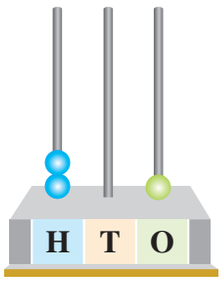
(e)



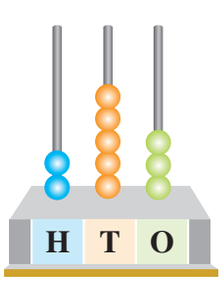
(f)



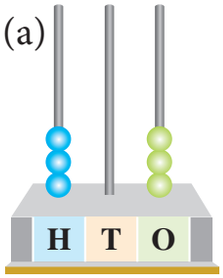
(g)

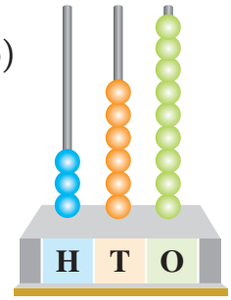


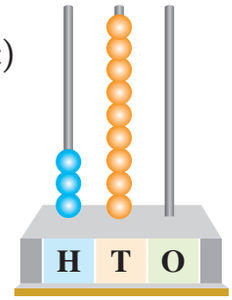
(h)

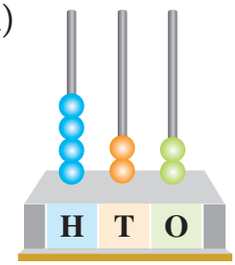


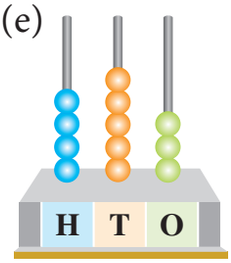
2. Write the number shown by each abacus in words.

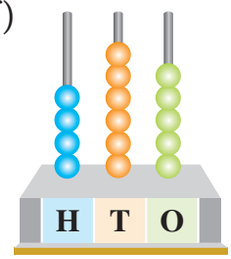
(a) 

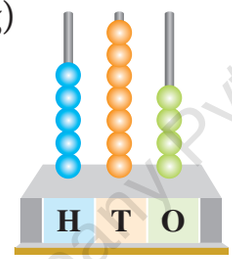
(b) 

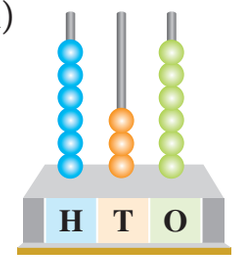
(c) 

(d) 

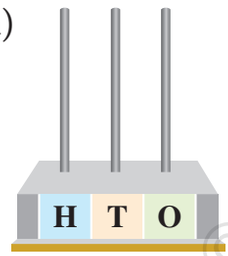
(e) 

(f) 

(g) 

(h) 

3. Draw beads to show the given number on each abacus.

(a) 

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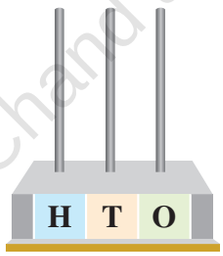
(b) 

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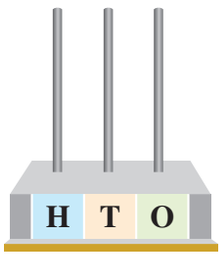
(c) 

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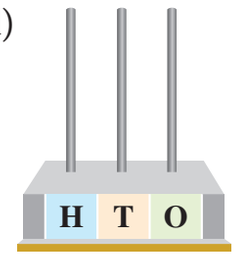
(d) 

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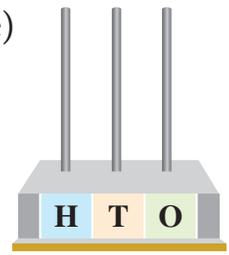
(e) 

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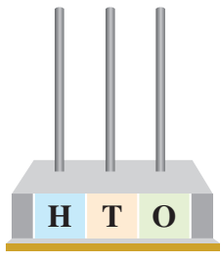
(f) 

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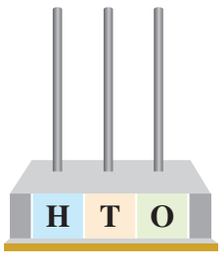
(g) 

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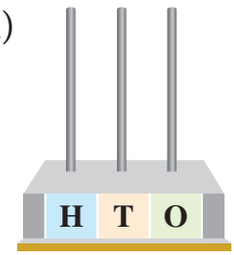
(h) 

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COMPARING NUMBERS

Having different number of digits

The number with greater number of digits is the larger of the two.

135	>	72
3 digits		2 digits

100	>	4
3 digits		1 digit

643	>	98
3 digits		2 digits

Having same number of digits

The most common and easy method to compare two numbers with same number of digits is using the place value chart.

Compare the digits in the same place-value position from left to right.

- If the digits at the hundreds place are different, then the number with the greater digit is bigger.

Example 1: **Compare 623 and 415.**

Solution: Arranging the digits of the given numbers in the place value chart, we have:

H	T	O
6	2	3
4	1	5

Compare the hundreds.
600 is greater than 400.
So, 623 > 415.

- If the digits at the hundreds place are same, then we move on to compare the digits at the tens place. The number with the greater tens digit is bigger.

Example 2: **Compare 535 and 563.**

Solution:

H	T	O
5	**3**	5
5	**6**	3

Compare the hundreds.
500 = 500.

Compare the tens.
30 is less than 60.
So, 535 < 563.

- If the digits at both hundreds and tens places are same, then we compare the digits at the ones place.

Example 3: **Compare 725 and 722.**

Solution:

H	T	O
7	2	5
7	2	2

Compare the hundreds.
700 = 700.

Compare the tens.
20 = 20.

Compare the ones.
5 is greater than 2.

So, 725 > 722.

EXERCISE 2H

1. Write > or < correctly in the boxes.

(a) 119 < 129 (b) 143 ☐ 132 (c) 234 ☐ 219

(d) 764 ☐ 521 (e) 632 ☐ 723 (f) 357 ☐ 324

(g) 438 ☐ 420 (h) 973 ☐ 986 (i) 901 ☐ 899

(j) 555 ☐ 333 (k) 802 ☐ 920 (l) 654 ☐ 564

2. Ring the greatest number.

(a) 623 154 753 (b) 912 283 798 (c) 415 514 154

3. Ring the smallest number.

(a) 840 912 213 (b) 715 481 913 (c) 411 860 638

ORDERING NUMBERS

Ordering numbers means writing them from the least to the greatest or from the greatest to the least.

We use the place value chart to order numbers.

Example 4: **Arrange 183, 475, 273, 391 in increasing order.**

Solution: First, we arrange the numbers in the place value chart as shown on the next page.

Compare the hundreds:

$1 < 2 < 3 < 4$

So, the numbers in increasing order are 183, 273, 391, 475. The same numbers in decreasing order, that is from the greatest to the least will be 475, 391, 273, 183.

H	T	O
1	8	3
4	7	5
2	7	3
3	9	1

Example 5: **Arrange 675, 657, 603, 654 in increasing order.**

Solution:

H	T	O
6	7	5
6	5	7
6	0	3
6	5	4

Compare the digits at the hundreds place.

$6 = 6 = 6 = 6$, all equal so,

Compare the digits at the tens place.

$0 < 5$ and $5 < 7$

The smallest number is 603 and the greatest number is 675.

Now, we need to compare the ones of the two numbers with 5 at tens place. We see that

$7 > 4$, so, $657 > 654$.

Hence, the numbers in increasing order are 603, 654, 657, 675.

EXERCISE 2I

1. Arrange the following numbers in ascending order.

(a) 319, 391, 328, 383

(b) 236, 615, 143, 789

(c) 893, 915, 898, 909

2. Arrange the following numbers in descending order.

(a) 117, 171, 177, 135

(b) 154, 612, 345, 890

(c) 467, 860, 318, 460

CHAPTER TEST

1. Write the numerals for the following.

(a) Seven hundred fifty-nine = ☐

(b) Nine hundred five = ☐

2. Write the number names for the following.

(a) 876 _____ (b) 799 _____

3. Write the number just after 999. _____

4. Write the number just before 'seven hundred eighty'. _____

5. Write 297 in expanded form. _____

6. Write the short form for 400 + 30 + 8. _____

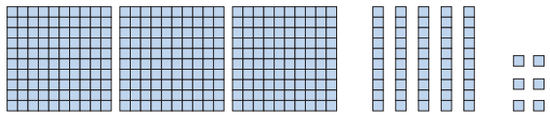
7. The greatest 3-digit number is: _____

8. The least 3-digit number is: _____

9. Compare and write >, = or <, for the following.

(a) 587 ☐ 875 (b) 605 ☐ 506 (c) 5 hundred 4 ones ☐ 504

10. Sonam wants to use blocks to show the number three hundred fourteen. Cross out the blocks that Sonam does not need.



11. Fill in the boxes.

(a) 384 = ☐ + 80 + 4 (b) 600 + ☐ + 8 = 698.

(c) 100 more than 900 is ☐.

12. Shalini's pattern begins with 248. A rule for her pattern is counting by hundred. What are the first six numbers in her pattern?

_____, _____, _____, _____, _____, _____.

Tick (✓) the correct answer.

13. The face value of the digit 8 in 809 is

(a) 8 ☐ (b) 80 ☐ (c) 800 ☐

14. Which of the following is not equal to 683?

(a) six hundred eighty-three ☐

(b) 6 hundreds 3 tens 8 ones ☐

(c) 600 + 80 + 3 ☐

15. Which of the following number is greater than 839?

(a) 835 ☐ (b) 796 ☐ (c) 838 ☐ (d) 842 ☐

16. Which shows the numbers in order from least to greatest?

(a) 518, 834, 548 ☐ (b) 518, 548, 834 ☐

(c) 548, 518, 834 ☐ (d) 834, 518, 548 ☐

17. What is the place value of the coloured digit in 8**9**7?

(a) 9 ☐ (b) 90 ☐ (c) 19 ☐ (d) 900 ☐

18. Write 'T' for true and 'F' for false.

(a) 450 is 45 tens. ☐

(b) 100 less than 975 is 875. ☐

(c) Place value of 6 in 569 is 6 tens. ☐

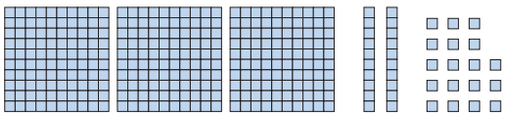
(d) 8 tens more than 700 is 780. ☐

(e) The numeral for 500 + 4 + 0 is 504. ☐

HOTS

1. Surjeet makes a pattern with 7 numbers. The last 5 numbers in his pattern are 290, 300, 310, 320, 330. What are the first two numbers in the pattern?

2. Which of the following numbers matches the picture that shows 3 hundreds 2 tens 18 ones?

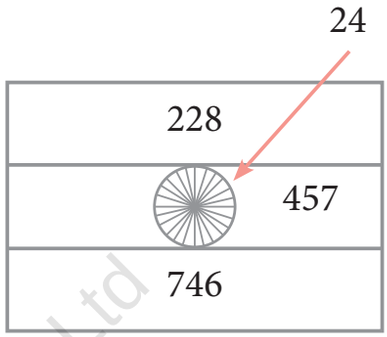


(a) 330 ☐ (b) 333 ☐ (c) 338 ☐ (d) 328 ☐

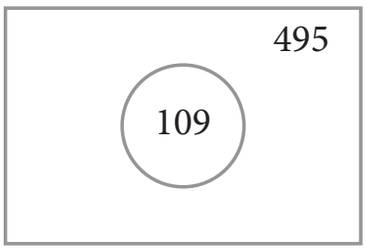
Fun Activity

Look at the following colour code and colour the spaces as instructed to know the flags of various countries.

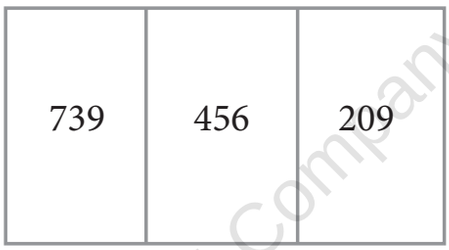
Blue	if the number is between 1 and 40.
Red	if the number is between 105 and 124.
Orange	if the number is between 201 and 243.
White	if the number is between 451 and 498.
Yellow	if the number is between 510 and 540.
Green	if the number is between 718 and 769.



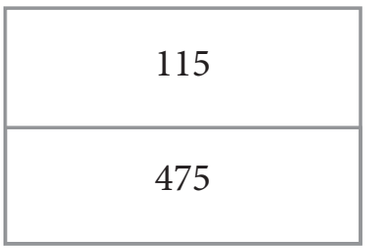
INDIA



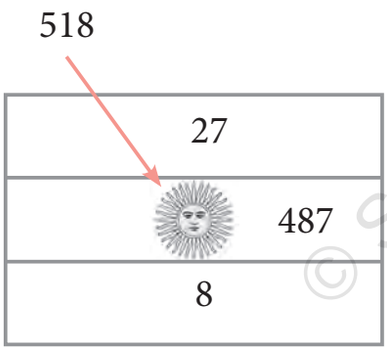
JAPAN



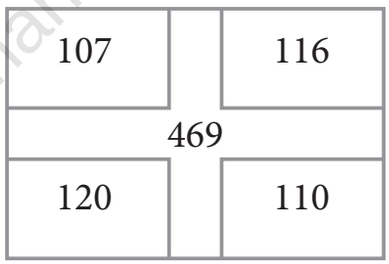
IRELAND



INDONESIA

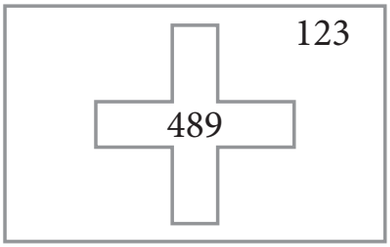


ARGENTINA

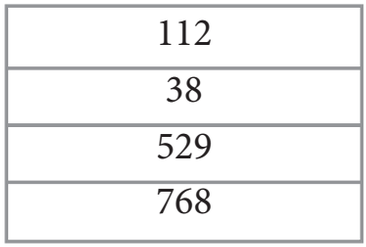


DENMARK

FRANCE



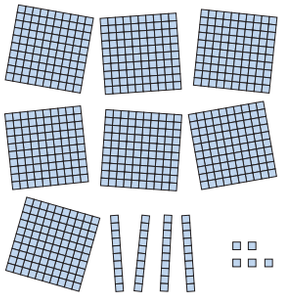
SWITZERLAND



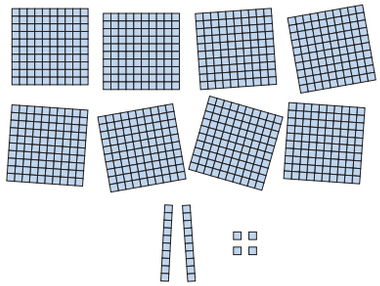
MAURITIUS

Worksheet

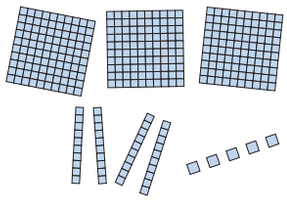
Write the number shown by the dancing blocks in each picture in standard form and expanded form.

1. 

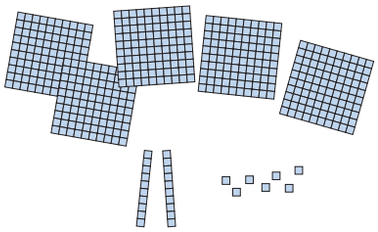
☐ = ____ + ____ + ____

2. 

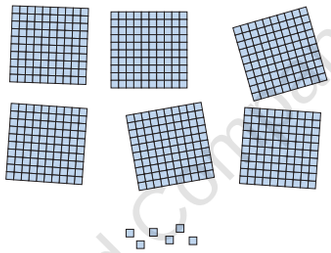
☐ = ____ + ____ + ____

3. 

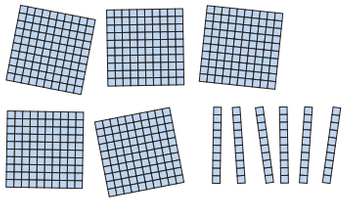
☐ = ____ + ____ + ____

4. 

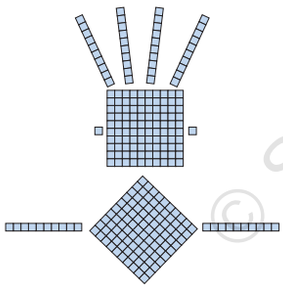
☐ = ____ + ____ + ____

5. 

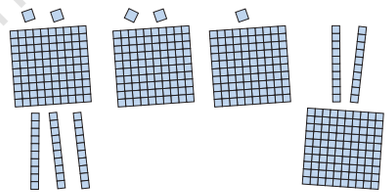
☐ = ____ + ____ + ____

6. 

☐ = ____ + ____ + ____

7. 

☐ = ____ + ____ + ____

8. 

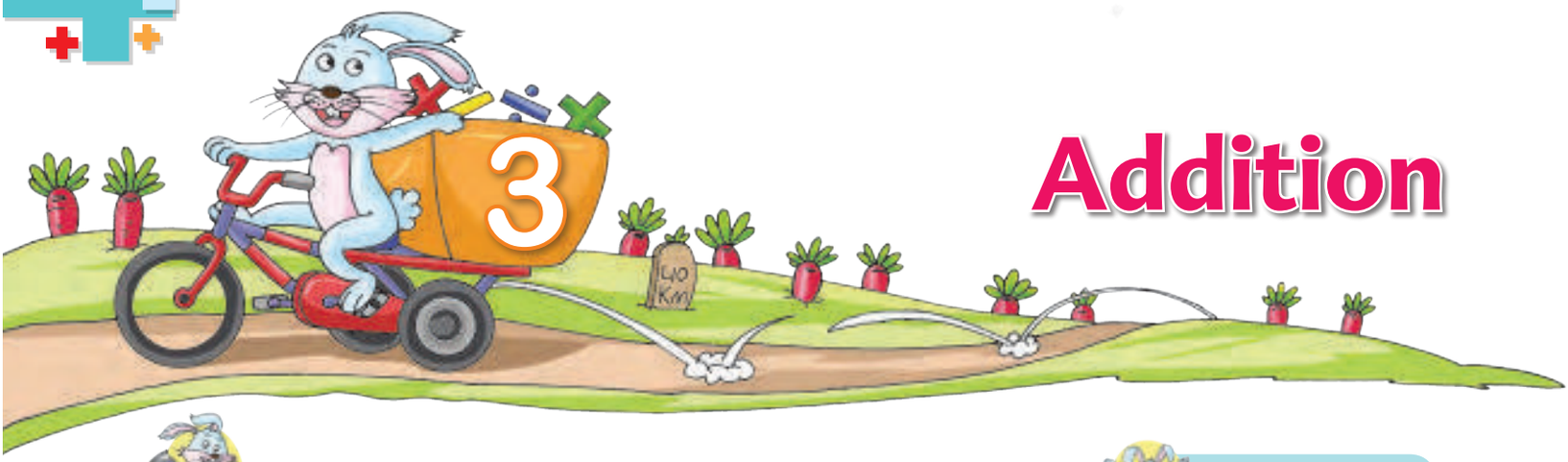
☐ = ____ + ____ + ____

Now, write the numbers in a row from the greatest to the least. Also write the number name below each number.

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____



3 Addition

Warm Up

For a charity event, the students of class 2B put a bakery stall. They distributed 42 cupcakes, 24 cookies and 15 fruit breads. How many bakery items did they distribute altogether?

Ma'am, to know the answer, we have to add 42, 24 and 15.

You are right. Let us learn adding three 2-digit numbers.

Vocabulary

- Addition
- Regroup
- Add
- Carry

ADDING THREE 2-DIGIT NUMBERS

Example 1: **Ayushree read 37 pages of a book on Saturday, 26 pages on Sunday and the rest 42 on Monday. How many pages did the book have in all?**

Solution: We will get the total number of pages by adding the number of pages read on the three days.

H	T	O
	(1) ← Carry	
	3	7
	2	6
+	4	2
1	0	5

So, the book has 105 pages.

Note: Here we see that after carrying 1 to the tens place and adding 1 + 3 + 2 + 4, we get 10, where 0 comes in the tens place and 1 in the hundreds place.

So, adding bigger 2-digit numbers can result in a 3-digit number.

EXERCISE 3A

Add:

1.

T	O
1	6
2	8
+ 5	2

2.

T	O
2	8
1	8
+ 4	3

3.

T	O
6	4
1	2
+ 1	8

4.

T	O
3	6
4	2
+ 1	5

5.

H	T	O
	1	9
	2	1
+	6	3

6.

H	T	O
	2	9
	3	5
+	3	8

7.

H	T	O
	4	4
	1	6
+	4	5

8.

H	T	O
	3	7
	2	6
+	5	8

9.

H	T	O
	3	8
	3	2
+	4	5

10.

H	T	O
	2	4
	6	6
+	4	8

11.

H	T	O
	5	2
	7	9
+	2	5

12.

H	T	O
	2	7
	8	6
+	2	8

WORD PROBLEMS

Example 2: **There are 18 apples on one tree and 24 apples on the other tree. How many apples are there on both the trees?**

Solution:

Number of apples on the first tree = 18

Number of apples on the second tree = 24

So, number of apples on both the trees = 18 + 24

= 42

Working

T	O
(1)	
1	8
+ 2	4
4	2

EXERCISE 3B

Solve the following. **Workspace**

1. There are 48 chocolates in one box and 34 chocolates in the other box. How many chocolates are there in both the boxes?

2. There are 44 passengers in one train carriage and 49 in another carriage. How many passengers are there in the two carriages?

3. Jasmeet read 27 pages of a book on Saturday and 26 more than Saturday on Sunday. How many pages in all did she read on both the days?

4. A hawker sold 45 eggs to one customer and 49 eggs to another customer. How many eggs did he sell to the two customers?

5. Rachna's mother bought 17 oranges, 16 bananas and 24 apples. How many fruits did she buy altogether?

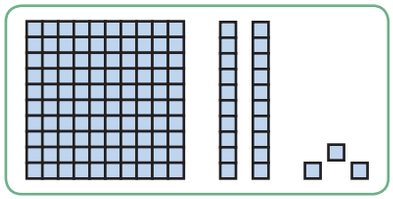
6. Ankit had 64 marbles. His friend Sanjay gave him 27 marbles. He won 15 marbles in a game. How many marbles does he have now?

ADDING 3-DIGIT NUMBERS (Without Carrying)

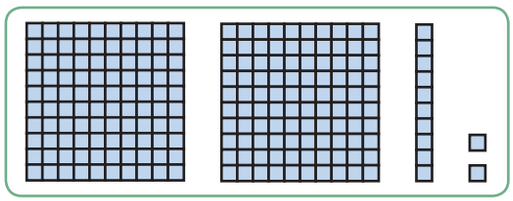
Let us add 123 and 212.

We can add the given numbers in the following ways.

1. Using the Expanded Form



+



$$\begin{array}{rrrrrrr} & 100 & + & 20 & + & 3 \\ + & 200 & + & 10 & + & 2 \\ \hline & 300 & + & 30 & + & 5 \\ = & 335 & & & & \end{array}$$

2. Using the Short Method

Arrange the numbers one below the other according to place value and add columnwise.

H	T	O
1	2	3
+ 2	1	2
3	3	5

→ Adding the ones.

→ Adding the tens.

→ Adding the hundreds.

So, 123 + 212 = 335.

EXERCISE 3C

1. Do the following sums using expanded form.

(a)

$$\begin{array}{rrrrrrrrrrr} 2 & 4 & 8 & = & & 200 & + & 40 & + & 8 \\ + 3 & 5 & 1 & = & + & 300 & + & 50 & + & 1 \\ \hline & & & & & \square & + & \square & + & \square & = & \square \end{array}$$

$$\begin{array}{rrr} 2 & 4 & 8 \\ + 3 & 5 & 1 \\ \hline 5 & 9 & 9 \end{array}$$

(b)

$$\begin{array}{rrrrrrrrrrr} 5 & 3 & 4 & = & & 500 & + & 30 & + & 4 \\ + 1 & 5 & 2 & = & + & 100 & + & 50 & + & 2 \\ \hline & & & & & \square & + & \square & + & \square & = & \square \end{array}$$

$$\begin{array}{rrr} 5 & 3 & 4 \\ + 1 & 5 & 2 \\ \hline & & \square \end{array}$$

(c)

$$\begin{array}{rrrrrrrrrrr} 7 & 2 & 0 & = & & 700 & + & 20 & + & 0 \\ + 2 & 6 & 3 & = & + & 200 & + & 60 & + & 3 \\ \hline & & & & & \square & + & \square & + & \square & = & \square \end{array}$$

$$\begin{array}{rrr} 7 & 2 & 0 \\ + 2 & 6 & 3 \\ \hline & & \square \end{array}$$

2. Add:

(a)

H	T	O
2	1	3
+ 3	5	4

(b)

H	T	O
5	0	3
+ 1	8	2

(c)

H	T	O
4	1	7
+ 2	6	2

(d)

H	T	O
3	1	9
+ 4	8	0

(e)

H	T	O
6	1	3
+ 1	5	4

(f)

H	T	O
2	1	5
+ 3	8	1

(g)

H	T	O
2	1	4
+ 6	0	4

(h)

H	T	O
1	2	0
+ 3	3	0

(i)

H	T	O
2	1	7
+ 6	0	2

(j)

H	T	O
5	3	1
+ 4	4	4

(k)

H	T	O
6	2	5
+ 1	4	2

(l)

H	T	O
2	1	9
+ 7	0	0

(m)

H	T	O
2	2	4
+ 3	5	2

(n)

H	T	O
8	1	2
+	7	1

(o)

H	T	O
3	0	2
+ 6	7	5

(p)

H	T	O
4	7	2
+ 3	1	6

(q)

H	T	O
9	1	5
+	8	2

(r)

H	T	O
4	2	9
+ 5	7	0

ADDING 3-DIGIT NUMBERS (With Carrying)

Carrying from ones to tens

Let us add 437 and 328.

Method 1: Using the Expanded Form

We write the numbers in expanded form and then add as follows.

Writing 15 as

$$\begin{array}{rcl} 437 & = & 400 + 30 + 7 \\ +\ 328 & = & 300 + 20 + 8 \\ \hline & & 700 + 50 + 15 \end{array}$$

$$\begin{aligned} &= 700 + 50 + (10 + 5) \\ &= 700 + (50 + 10) + 5 \\ &= 700 + 60 + 5 = 765 \end{aligned}$$

Method 2: Using the Short Form

Arrange the numbers one below the other according to place value and add columnwise.

H	T	O
	(1) ← Carry	
4	3	7
+ 3	2	8
7	6	5

Step 1: **Add the ones.** 7 + 8 = 15 = 1 ten 5 ones
Write 5 under the ones column and carry 1 ten to the tens column.

Step 2: **Add the tens.**
1 (carried from ones column) + 3 + 2 = 6.
Write 6 under tens column.

Step 3: **Add the hundreds.** 4 + 3 = 7
Write 7 under hundreds column.

Class Work

Add: **1.**

H	T	O
5	4	9
+ 1	3	8

2.

H	T	O
6	2	7
+ 2	5	9

3.

H	T	O
5	1	6
+ 3	7	6

4.

H	T	O
2	0	8
+ 4	0	9

EXERCISE 3D

Add:

1.

H	T	O
5	3	8
+ 2	4	9

2.

H	T	O
2	1	9
+ 1	3	6

3.

H	T	O
7	3	6
+ 2	1	8

4.

H	T	O
1	0	7
+ 2	1	7

5.

H	T	O
5	6	6
+ 2	0	7

6.

H	T	O
1	8	9
+ 2	0	9

7.

H	T	O
3	2	7
+ 1	6	8

8.

H	T	O
7	8	8
+		9

9.

H	T	O
1	3	6
+ 5	1	4

10.

H	T	O
3	2	8
+ 3	2	4

11.

H	T	O
6	3	7
+ 2	5	3

12.

H	T	O
8	3	4
+	2	8

13.

H	T	O
3	8	1
+ 1	0	9

14.

H	T	O
7	2	7
+ 1	5	7

15.

H	T	O
5	2	6
+ 3	4	8

16.

H	T	O
6	1	8
+ 2	5	7

17.

H	T	O
1	3	9
+	4	9

18.

H	T	O
2	2	8
+ 4	6	9

19.

H	T	O
1	5	3
+ 6	1	8

20.

H	T	O
2	0	9
+ 3	7	7

Carrying from ones to tens and from tens to hundreds

Example 3: **Add 467 and 398.**

Solution: **Method 1: Using the Expanded Form**

We can add the numbers as follows.

4 6 7	=	400 + 60 + 7
+ 3 9 8	=	300 + 90 + 8
		700 + 150 + 15

Writing 150 as (100 + 50); Writing 15 as (10 + 5)

= 700 + (100 + 50) + (10 + 5)

= (700 + 100) + (50 + 10) + 5)

= 800 + 60 + 5 = 865

Method 2: Using the Short Form

H	T	O
1	1	
4	6	7
+ 3	9	8
8	6	5

Step 1: **Add the ones.** 8 ones + 7 ones = 15 ones = 1 ten 5 ones. Write 5 in ones column and carry 1 ten to the tens column.

Step 2: **Add the tens.** 1 ten (carried over) + 6 tens + 9 tens = 16 tens = 1 hundred + 6 tens. Write 6 in tens column and carry 1 hundred to the hundreds column.

Step 3: **Add the hundreds.** 1 hundred (carried over) + 4 hundreds + 3 hundreds = 8 hundreds.

Example 4: **Add 639 and 287.**

Solution:

H	T	O
1	1	
6	3	9
+ 2	8	7
9	2	6

Step 1: **Add the ones.** 9 ones + 7 ones = 16 ones = 1 ten + 6 ones. Write 6 in ones column and carry 1 ten to the tens column.

Step 2: **Add the tens.** 1 ten (carried over) + 3 tens + 8 tens = 12 tens = 1 hundred + 2 tens. Write 2 in tens column and carry 1 hundred to the hundreds column.

Step 3: **Add the hundreds.** 1 hundred (carried over) + 6 hundreds + 2 hundreds = 9 hundreds

EXERCISE 3E

1. Add the following. One has been done for you.

(a)

H	T	O
1	1	
3	5	9
+ 4	7	6
8	3	5

(b)

H	T	O
1	0	7
+ 2	9	3

(c)

H	T	O
7	3	6
+ 1	6	8

(d)

H	T	O
3	4	7
+ 4	9	3

(e)

H	T	O
6	4	9
+ 3	1	8

(f)

H	T	O
4	7	2
+ 3	5	9

(g)

H	T	O
8	2	9
+	7	3

(h)

H	T	O
5	0	7
+ 3	6	5

(i)

H	T	O
3	8	9
+	9	7

(j)

H	T	O
7	5	9
+ 1	5	7

(k)

H	T	O
4	3	8
+ 1	9	9

(l)

H	T	O
3	9	1
+ 4	7	9

2. Find the sum. One has been done for you.

(a)

H	T	O
1	1	
4	6	3
1	4	7
+	2	6
6	3	6

(b)

H	T	O
3	5	1
	7	8
+ 2	4	8

(c)

H	T	O
2	4	3
2	5	7
+ 1	8	2

(d)

H	T	O
6	4	7
1	3	0
+ 1	5	5

(e)

H	T	O
2	9	6
4	0	1
+ 2	3	5

(f)

H	T	O
4	8	1
1	0	2
+ 3	3	9

(g)

H	T	O
3	5	3
1	1	6
+ 2	3	1

(h)

H	T	O
4	1	7
1	2	4
+ 3	6	2

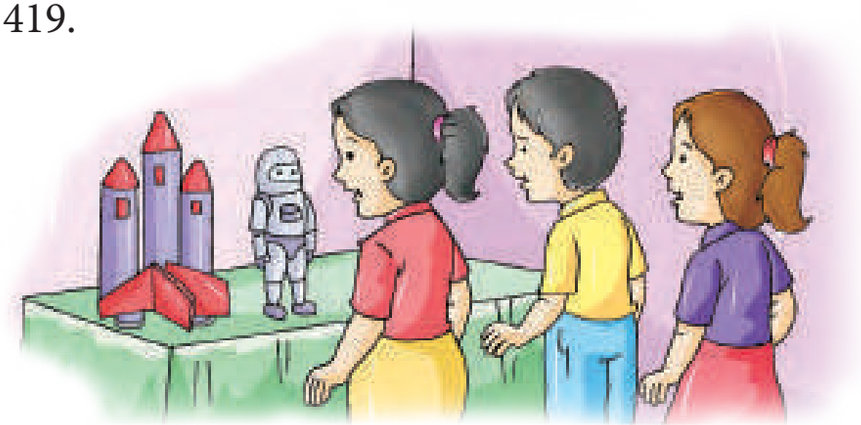
WORD PROBLEMS

Example 5: **An exhibition at the science centre was watched by 387 boys and 419 girls on Monday. How many students watched the exhibition in all on Monday?**

Solution: To find the total number of students who watched the exhibition we add 387 and 419.

Working

H	T	O
1	1	
3	8	7
+ 4	1	9
8	0	6

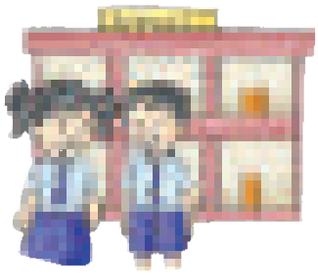


So, 806 students watched the exhibition.

EXERCISE 3F

Workspace

1. There are 485 boys and 343 girls in a school. How many students are there altogether in the school?



2. A postman delivered 254 letters in the morning. He delivered 180 letters in the afternoon. How many letters did he deliver altogether?

3. Rehan collected 125 keychains. Mohit collected 193 keychains. How many key chains in all did both of them collect?

4. A fruit seller sold 350 oranges, 432 apples and 189 bananas during the day. How many fruits did he sell altogether?

5. The money collected from the school winter carnival goes to an orphanage. For the carnival, 3 girls made quite a lot of effort and Divya sold 234 tickets, Kiran sold 169 tickets and Arpita sold 245 tickets. How many tickets did the 3 girls sell altogether? What moral value is shown by the girls?

[Value Based Question]

CHAPTER TEST

Tick (✓) the correct answer in questions 1 to 3.

What is the sum?

1.

T	O
5	3
+ 9	8

(a) 150 ◯ (b) 151 ◯

(c) 141 ◯ (d) 152 ◯

2.

H	T	O
2	4	6
+ 4	7	5

(a) 721 ◯ (b) 720 ◯

(c) 271 ◯ (d) 691 ◯

3.

H	T	O
5	2	8
1	9	7
+ 2	6	5

(a) 890 ◯ (b) 980 ◯

(c) 990 ◯ (d) 900 ◯

4. In the given list, find the sum of the smallest and the greatest number.

89 58 75 46

5. Rita has collected 298 stamps. Neha has collected 387. How many stamps do they have in all?

6. Rohit has 359 sea shells. His sister has 187 more sea shells than him. How many sea shells do they have in all?

HOTS

Fill in the boxes with the correct numbers.

1.

	□	8	□
+	4	□	3
	7	5	6

2.

	3	2	□
+	4	□	5
	8	0	4

Worksheet

1. A **palindrome** is a word or phrase that reads the same forward and backward.

Example: MOM

Read forward: MOM Read backward: MOM

Some numbers are palindrome too.

Example: 808

Read forward: 808 Read backward: 808

We can find the palindrome of a given number. Study the following example.

Example: Start with any 3-digit number say 162.
Reverse it, you get: 261
Add: 162 + 261 = 423
Reverse the sum: 324
Add: 423 + 324 = 747, which is a palindrome.

Note: Continue reversing and adding until you get a **palindrome.**

Use the method given above to find a palindrome using the following numbers.

(a) 153 (b) 432

2. Pair the numbers in the table to find the sums given below. When you find a pair, cross out the numbers from the table and write them to complete the correct number sentence. You cannot use a number more than once. One is done for you.

242	142	444	102
~~24~~	247	196	743
204	58	~~76~~	653
356	257	498	458

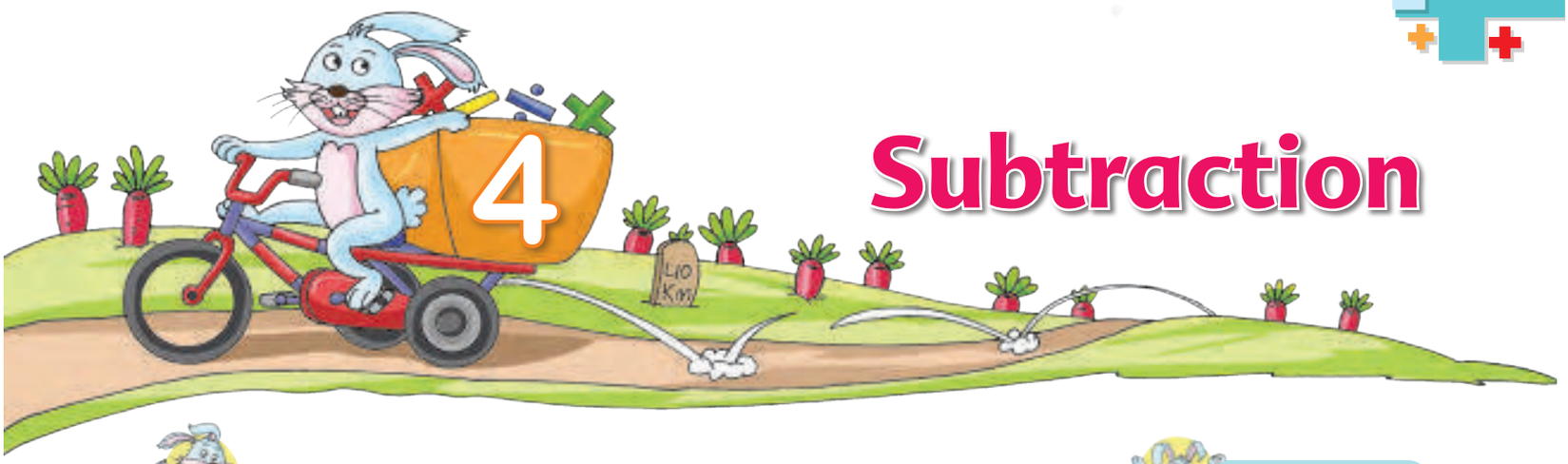
Number pairs

(a) _____ + _____ = 900 (b) _____ + _____ = 800

(c) _____ + _____ = 700 (d) _____ + _____ = 600

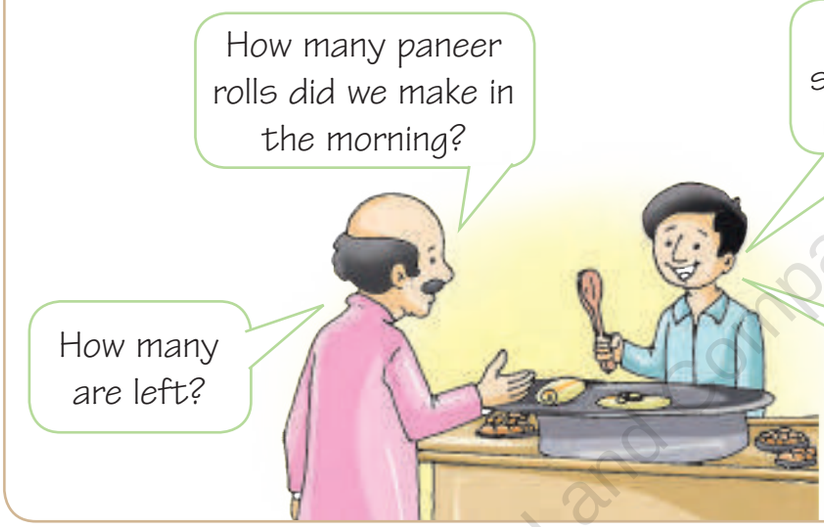
(e) _____ + _____ = 400 (f) _____ + _____ = 200

(g) 24 + 76 = 100 (h) _____ + _____ = 1000



4 Subtraction

Warm Up



Vocabulary

- Subtraction
- Regroup
- Subtract
- Borrow

SUBTRACTING 3-DIGIT NUMBERS (Without Borrowing)

Let us subtract 124 from 365. We can subtract one number from the other in the following ways.

1. Using the Expanded Form

$$\begin{aligned} 365 &= 300 + 60 + 5 \\ -\,124 &= -\,100 + 20 + 4 \\ &= 200 + 40 + 1 = 241 \end{aligned}$$

2. Using the Short Form

Arrange the numbers one below the other according to place value and subtract columnwise.

$$\begin{array}{r} 3\ 6\ 5 \\ -\ 1\ 2\ 4 \\ \hline 2\ 4\ 1 \end{array}$$

Step 1: Subtract the ones.

Step 2: Subtract the tens.

Step 3: Subtract the hundreds.

So, 365 – 124 = 241

EXERCISE 4A

1. Using the expanded form, subtract the following.

(a)

5	9	8	=		500	+	90	+	8		
– 3	6	1	=	–	300	+	60	+	1		
						+		+		=	

5	9	8
– 3	6	1

(b)

4	7	6	=		400	+	70	+	6		
– 2	4	5	=	–	200	+	40	+	5		
						+		+		=	

4	7	6
– 2	4	5

(c)

7	3	9	=		700	+	30	+	9		
– 1	2	9	=	–	100	+	20	+	9		
						+		+		=	

7	3	9
– 1	2	9

2. Subtract:

(a)

H	T	O
5	8	3
– 2	7	1

(b)

H	T	O
4	9	5
– 2	7	3

(c)

H	T	O
4	9	5
– 2	6	3

(d)

H	T	O
2	9	5
– 1	6	2

(e)

H	T	O
7	1	2
– 5	1	1

(f)

H	T	O
8	7	5
– 3	2	4

(g)

H	T	O
6	8	5
– 2	7	3

(h)

H	T	O
9	7	8
– 7	6	1

3. Find the difference.

(a)

	H	T	O
	2	1	9
–	1	0	9

(b)

	H	T	O
	9	8	4
–	2	6	3

(c)

	H	T	O
	8	1	3
–	8	0	2

(d)

	H	T	O
	6	9	0
–	2	1	0

(e)

	H	T	O
	7	1	8
–	3	1	4

(f)

	H	T	O
	5	0	9
–	2	0	3

(g)

	H	T	O
	8	0	0
–	2	0	0

(h)

	H	T	O
	9	8	2
–	9	4	1

(i)

	H	T	O
	7	9	6
–	4	8	1

SUBTRACTING 3-DIGIT NUMBERS (With Borrowing)

Borrowing from tens to ones

Let us subtract 439 from 895.

Method 1: Using the Expanded Form

We write the given numbers in expanded form and then subtract as follows.

8 tens + 1 ten → **15 ones**

895 = 8 hundreds 9 tens 5 ones = 8 hundreds 8 tens 15 ones

– 439 = 4 hundreds 3 tens 9 ones = – 4 hundreds 3 tens 9 ones

4 hundreds 5 tens 6 ones = 456

Method 2: Using the Short Form

H	T	O
	8	15
8	~~9~~	~~5~~
– 4	3	9
4	5	6

Step 1: Subtract the ones. Borrow from tens if required.

Step 2: Subtract the tens.

Step 3: Subtract the hundreds.

EXERCISE 4B

Subtract:

1.

H	T	O
	◯	◯
8	6	2
– 2	3	7

2.

H	T	O
	◯	◯
4	8	7
– 2	4	8

3.

H	T	O
	◯	◯
7	7	8
– 4	4	9

4.

H	T	O
	◯	◯
6	7	2
– 1	6	3

5.

H	T	O
	◯	◯
3	9	1
–	2	7

6.

H	T	O
	◯	◯
7	6	0
– 1	2	1

7.

H	T	O
	◯	◯
8	9	1
– 2	5	4

8.

H	T	O
	◯	◯
4	3	0
– 1	1	2

Borrowing from hundreds to tens and from tens to ones

Let us subtract 389 from 653.

Step 1: Write in column form as shown on the right.

H	T	O
6	5	3
– 3	8	9

Step 2 : **Subtract the ones**. Since 9 > 3, we cannot subtract 9 from 3. So, borrow 1 ten from the tens column.

Then, 4 tens are left in the tens column and 1 ten (borrowed) + 3 ones = 13 ones in the ones column. Subtracting 9 ones from 13 ones, we get 4 ones.

Step 3: **Subtract the tens**. We have 4 tens left in tens column. We cannot subtract 8 from 4, so borrow 1 hundred from the hundreds column. Now, we have 5 hundreds left in the hundreds column and 1 hundred (10 tens) (borrowed from hundreds column) + 4 tens = 14 tens in the tens column. Subtracting 8 tens from 14 tens, we get 6 tens.

H	T	O
	14	
5	~~4~~	13
~~6~~	~~5~~	~~3~~
– 3	8	9
2	6	4

Step 4: **Subtract the hundreds**. 5 hundreds – 3 hundreds = 2 hundreds.

So, 653 – 389 = 264

Look at the following examples.

H	T	O
	11	
6	~~1~~	15
~~7~~	~~2~~	~~5~~
– 4	8	6
2	3	9

H	T	O
	14	
7	~~4~~	10
~~8~~	~~5~~	~~0~~
– 3	7	5
4	7	5

H	T	O
	9	
7	~~10~~	14
~~8~~	~~0~~	~~4~~
–	6	8
7	3	6

In the last subtraction problem, first borrow 1 hundred from 8 hundreds. Now, in place of 0 tens you have 10 tens in the tens column. Borrow 1 ten from 10 tens. 4 ones + 1 ten (borrowed) become 14 ones in the ones column.

EXERCISE 4C

1. Subtract:

(a)

H	T	O
◯	◯	◯
3	7	6
– 1	9	8

(b)

H	T	O
◯	◯	◯
5	4	2
– 2	5	3

(c)

H	T	O
◯	◯	◯
6	2	8
– 1	4	9

(d)

H	T	O
◯	◯	◯
7	6	9
– 2	8	9

2. Find the difference.

(a)

H	T	O
4	8	0
– 1	9	3

(b)

H	T	O
7	1	2
– 2	0	4

(c)

H	T	O
4	2	3
– 1	6	4

(d)

H	T	O
5	2	5
– 2	3	6

(e)

H	T	O
5	4	1
– 2	6	3

(f)

H	T	O
7	0	7
– 3	5	6

(g)

H	T	O
9	0	0
– 6	7	6

(h)

H	T	O
8	7	7
–	8	8

WORD PROBLEMS

Example: **The library purchased 435 new books this year for Grade 2. 278 are story books. How many of the books are not story books?**

Solution: To get the number of books that are not story books, we subtract the number of story books from the new books purchased.

Working

H	T	O
	12	
3	~~2~~	15
~~4~~	~~3~~	~~5~~
– 2	7	8
1	5	7

New books = 435

Story books = 278

Non-story books = 435 – 278

= 157

So, non-story books = 157.

EXERCISE 4D

Solve the following problems.

1. 825 people visited a book fair. 98 of them were children. How many adults were there in the book fair?

H	T	O
8	2	5
–	9	8

2. A farmer had 275 chickens. He sold 169 of them. How many chickens were left?

H	T	O

3. George needs 260 pictures to fill his album. He has 185 pictures in the album. How many more pictures can be put in the album?

H	T	O

4. Navin and his father have travelled 318 km. They are taking a 700 km trip. How much farther have they to travel?

H	T	O

5. Prem had a collection of 212 bottle caps. Ashok had a collection of 165 bottle caps. How many more bottle caps were in Prem's collection than in Ashok's?

H	T	O

6. Vijay planted 325 small tomato plants. 162 of the plants did not live. How many plants did live?

H	T	O

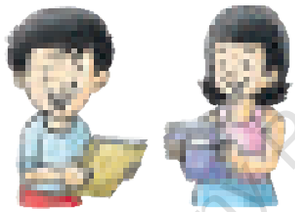
7. Manav has 132 marbles. His friend Ajay has 28 marbles less than him. How many marbles does Ajay have?

H	T	O

8. Aadhar is reading a book that has 275 pages. He read 129 pages on the first day. How many pages are left for him to read?

H	T	O

9. Nidhi and Rhea spent ₹ 900 in a book shop. If Rhea bought a book for ₹ 465, how much did Nidhi spend?



H	T	O

10. 623 visitors went to the zoo in the month of November. 289 fewer visitors went to the zoo in December. How many visitors went to the zoo in the month of December?

H	T	O

ADDITION AND SUBTRACTION TOGETHER

As you solve more and more word problems, it will become easier for you to decide whether to add or subtract.

Read the problems carefully and solve.

1. There are 54 seats in a bus. Out of these, 36 seats are occupied with passengers. How many seats are vacant?

This is a subtraction problem as the question asked is "How many seats are vacant?".

2. A balloonseller had 97 red, 85 purple, and 80 yellow balloons. How many balloons did he have in all?

This is an addition problem as the question asked is "How many balloons in all?".

EXERCISE 4E

Will you add or subtract?

1. Janet had 253 oranges in her juice shop. She uses 165 oranges to make some juice for a party. How many oranges are left with her?

To get the number of left over oranges, we need to subtract 165 from 253.

	H	T	O
	2	5	3
–	1	6	5

	H	T	O
	4	6	5
+	3	2	7

2. Mrs Brown baked 465 cookies on Saturday and 327 cookies on Sunday. How many cookies did she bake in all over the weekend?

To find the total number of cookies baked, we need to add 465 and 327.

3. 762 people ran in the marathon this year. 485 people crossed the finishing line. How many people did not cross the finishing line?

H	T	O

4. 280 bottles were collected during the recycling programme last year. 178 more bottles than last year were collected this year. What is the total number of bottles collected this year? How many bottles were collected in both the years altogether?

H	T	O

5. There are 275 passengers and 423 pieces of luggage in a flight. How many more pieces of luggage than passengers are there?

H	T	O

CHAPTER TEST

1. Subtract:

(a)

H	T	O
5	4	6
– 4	0	0

(b)

H	T	O
6	9	8
–	2	8

(c)

H	T	O
1	8	7
–	3	0

(d)

T	O
9	5
– 6	8

(e)

H	T	O
8	0	0
– 6	8	5

(f)

H	T	O
7	5	4
– 3	8	9

2. Which is greater?

H	T	O
8	3	0
– 2	9	8

or

H	T	O
9	6	6
– 2	7	6

Tick (✓) the correct answer.

3. The difference between 517 and _____ is 382.

(a) 139 ◯ (b) 799 ◯ (c) 135 ◯ (d) 889 ◯

4. The price of a pair of shoes is ₹ 900. The price of a pair of socks is ₹ 185. The difference between the prices is

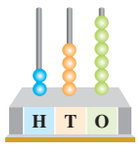
(a) ₹ 725 ◯ (b) ₹ 715 ◯ (c) ₹ 700 ◯ (d) ₹ 705 ◯

5. I have one ₹ 1000 note. I buy a book whose price is ₹ 295 and stationery items which cost ₹ 187. How much money is left with me?

(a) ₹ 528 ◯ (b) ₹ 508 ◯ (c) ₹ 518 ◯ (d) ₹ 498 ◯

Worksheet

Solve the problems in column A and match the differences to the numbers given in column B.

Column A	Column B
1. 5 0 9 − 2 3 9 = _____	(a) 200 + 10 + 7
2. 9 1 0 − 5 9 6 = _____	(b) Two hundred two
3. 7 3 5 − 4 8 9 = _____	(c) 2 hundreds 7 tens
4. 9 0 1 − 6 8 4 = _____	(d) 800 − 486
5. 7 0 0 − 4 9 8 = _____	(e) 

HOTS

1. Using the digits 5, 2 and 6, form the greatest and the least numbers and find their sum and difference.
2. Add 378, 295 and 188. Subtract the sum obtain from the largest 3-digit number.
3. 704 − 152 = 5 hundreds _____ ones.
4. Tick (✓) the number sentence that has an answer of "six hundred forty-eight."
   (a) 900 − 372 ☐ (b) 383 + 255 ☐
   (c) 862 − 264 ☐ (d) 169 + 479 ☐
5. Rita bought 184 apples and 127 pears, out of which 90 fruits were rotten. How many fruits were good?

Fun Activity

- Two to four players can play the game at a time.
- Each player needs 3 sets of number cards from 0 to 9.

1. Cut out 3 sets of number cards from 0 to 9 as shown here.

0 ⌘ Zero	1 ⌘ One	2 ⌘ Two	3 ⌘ Three	4 ⌘ Four	5 ⌘ Five
6 ⌘ Six	7 ⌘ Seven	8 ⌘ Eight	9 ⌘ Nine		

2. Mix up the cards with the face on which the numbers are written down. Then each player turns six cards face up.

4 ⌘ Four	9 ⌘ Nine	8 ⌘ Eight	8 ⌘ Eight	0 ⌘ Zero	9 ⌘ Nine
1 ⌘ One	5 ⌘ Five	8 ⌘ Eight	5 ⌘ Five	1 ⌘ One	5 ⌘ Five

3. Now each player arranges the above 6 cards to get two 3-digit numbers.

4. Subtract the numbers. The player with the least difference scores 10 points.

5. Play 5 rounds. The player with the maximum points wins.

Quick Review

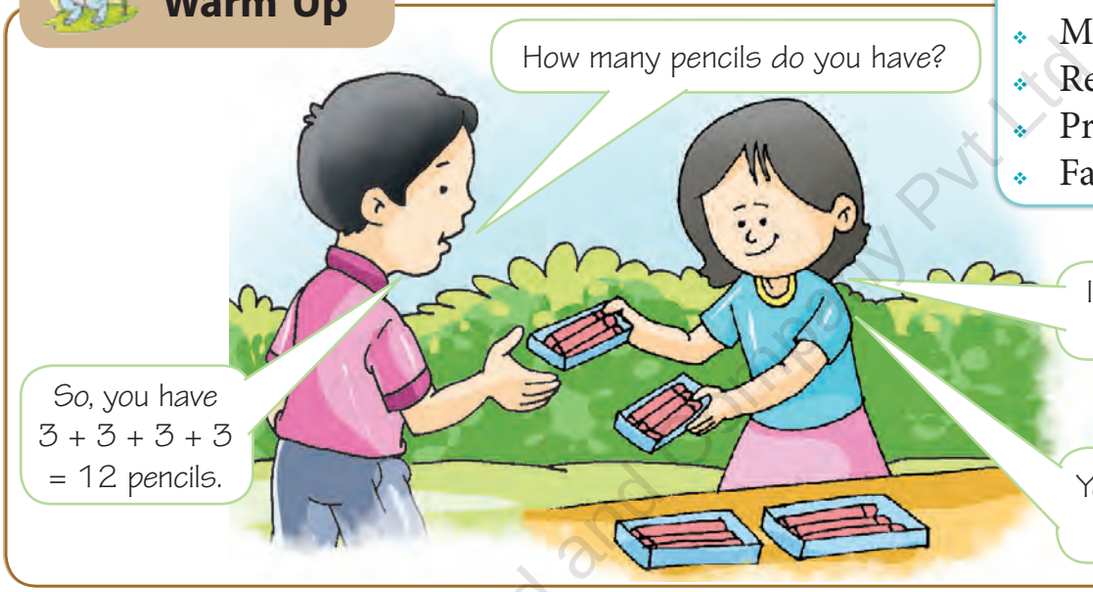
1. Write the sum of 275 and 318 in words. _____

2. Which is the least number? 978, 879, 897 or 987? ☐

3. A bookshop has 578 magazines, out of which 299 are sports magazines and the rest are children's magazines. What is the number of children's magazines? Write this number in expanded form. ☐ _____

5 Multiplication

Warm Up



Vocabulary

- Multiply
- Multiplication
- Repeated Addition
- Product
- Factors

REPEATED ADDITION

There are 5 twos in all. Their sum is 10.

2 + 2 + 2 + 2 + 2 equals 10.

2 has been added 5 times.

5 twos are 10 or 5 times 2 equals 10.

The short way of thinking about **repeated addition** is called **multiplication**.

We say that **5 times 2 equals 10** or **5 multiplied by 2 is 10** and we write **5 × 2 = 10**. **10** is called the **product** of 5 and 2. The numbers 5 and 2 are called **factors**.

'**×**' is the sign of **multiplication**.

The given picture shows 3 rows of 4 eggs each.
We have 4 eggs + 4 eggs + 4 eggs = 12 eggs
or 4 + 4 + 4 = 12, that is there are 3 fours.
We say 3 times 4 equals 12 or 3 multiplied by 4 equals 12 and write

$3 \times 4 = 12$ or

$$\begin{array}{r} 3 \\ \times\ 4 \\ \hline 12 \end{array}$$

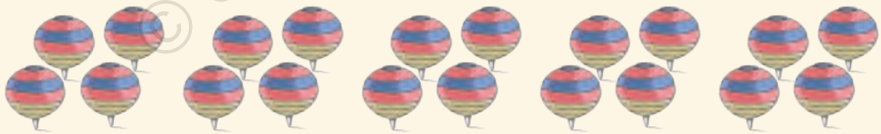
$3 \times 4 = 12$ is a multiplication fact.

EXERCISE 5A

1. Write the multiplication fact for the objects of each row.

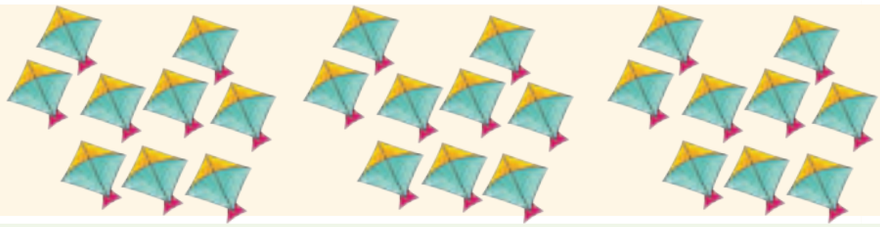
(a)  $3 \times 2 = 6$

(b) 

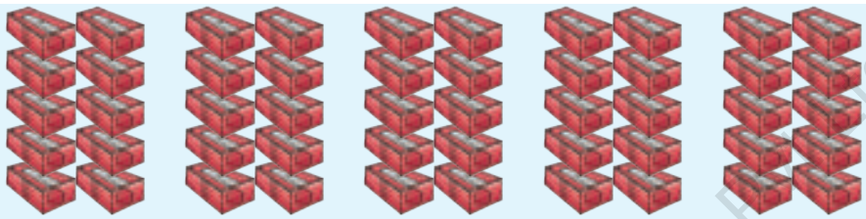
(c) 

(d) 

(e) 

(f) 

(g) 

(h) 

2. Write the multiplication form of each of the following repeated additions.

(a) 2 + 2 + 2 + 2 = 4 × 2 = 8

(b) 4 + 4 =

(c) 3 + 3 + 3 + 3 + 3 =

(d) 6 + 6 + 6 + 6 + 6 + 6 + 6 =

(e) 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 =

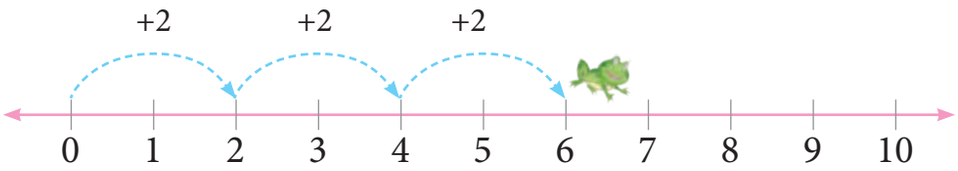
(f) 9 + 9 + 9 + 9 + 9 + 9 =

(g) 10 + 10 =

(h) 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 =

(i) 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 =

MULTIPLICATION ON THE NUMBER LINE



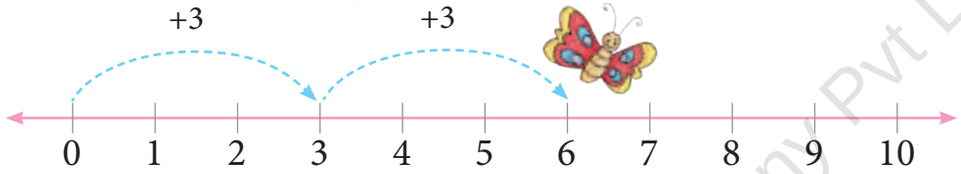
How many jumps are made by the frog? _____

How big is each jump? _____

We can write 2 + 2 + 2 = 6 or 3 × 2 = 6.

Now, observe the following.

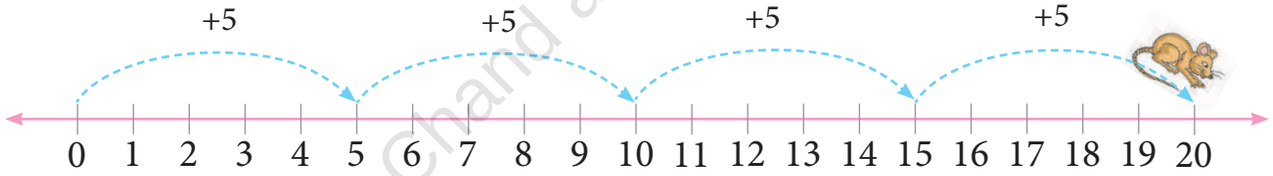
Start at **0**. Hop **3**, **two times**. Stop at **6**.



3 + 3 = 6. 2 threes equal 6. 2 times 3 equals 6.

2 × 3 = 6

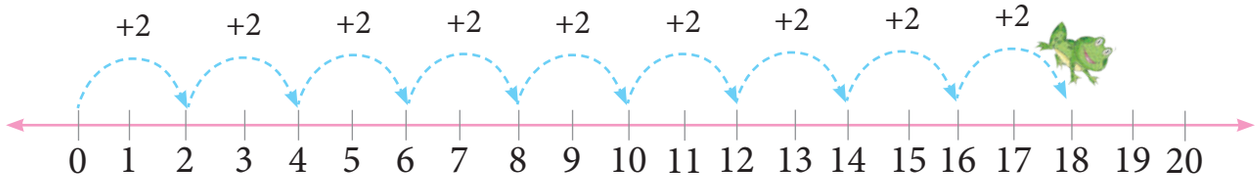
Start at **0**. Hop **5**, **four times**. Stop at ____



5 + 5 + 5 + 5 = ____. 4 fives equal ____. 4 times 5 equals ____.

4 × 5 = ____

Start at **0**. Hop **2**, **nine times**. Stop at ____



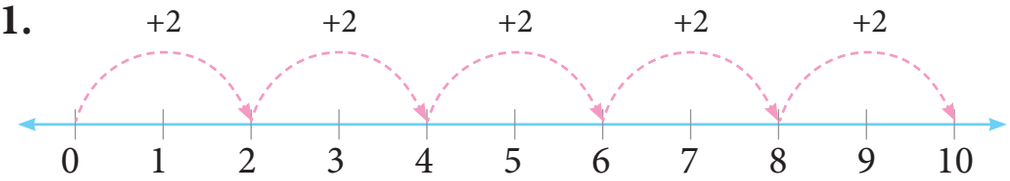
2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = ____. 9 times 2 equals ____.

9 × 2 = ____

EXERCISE 5B

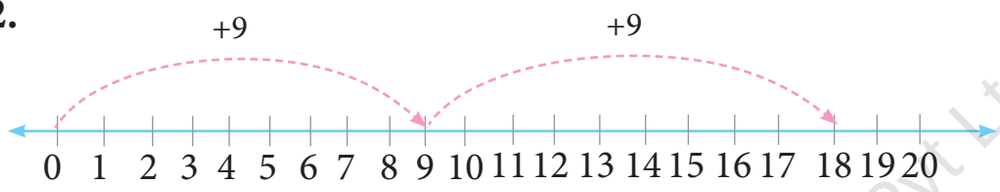
Write the multiplication fact for each number line.

1.

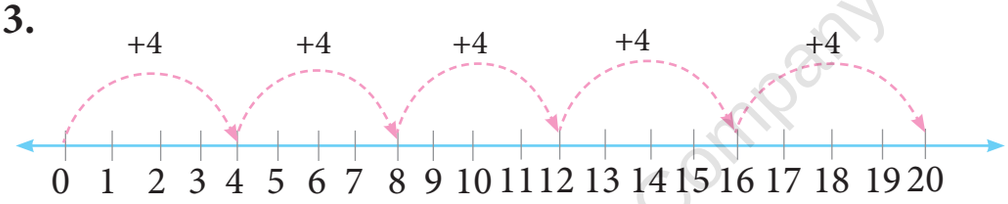


$5 \times 2 = 10$

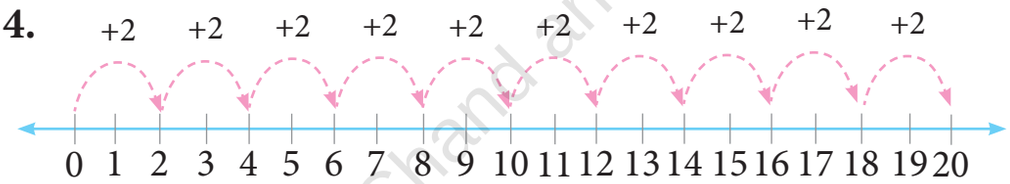
2.



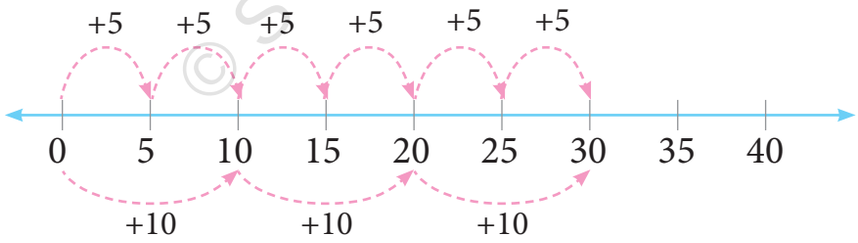
3.



4.



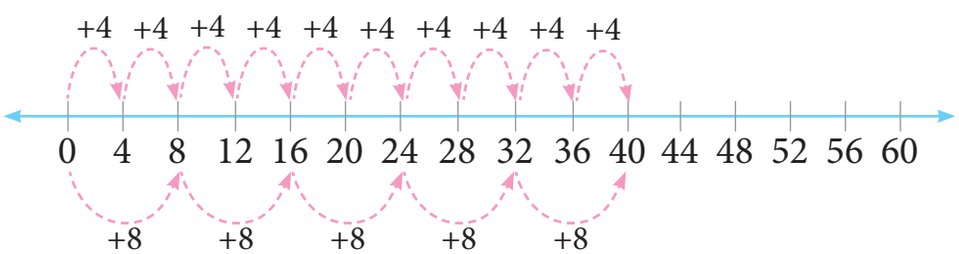
5.



$6 \times 5 =$

$3 \times 10 =$

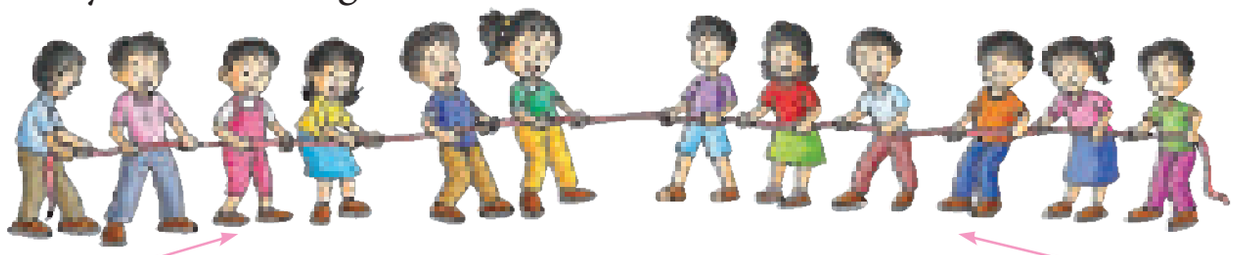
6.



PROPERTIES OF MULTIPLICATION

1. Order property

Study the following.



2 + 2 + 2 = 6
or 3 twos are 6.
3 × 2 = 6.

3 + 3 = 6
2 threes are 6
2 × 3 = 6.

Since the product is the same, we have 3 × 2 = 2 × 3 = 6.

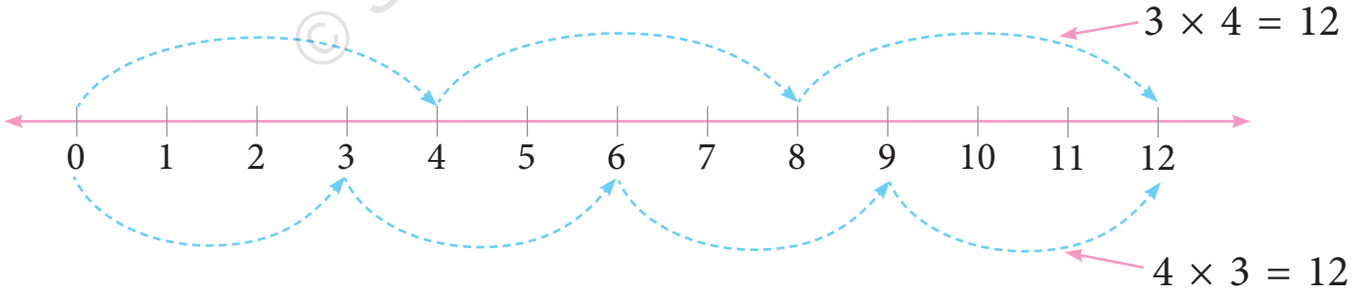
Now, look at the following.

There are 3 rows of 4 footballs each. The multiplication fact for this is **3 × 4 = 12**

We can also think that there are 4 columns of 3 footballs each. The multiplication fact for this is **4 × 3 = 12.**

Since product is the same in both the cases, we have 3 × 4 = 4 × 3 = 12

We can show this using a number line as shown below.



From the above discussion we come to the following result.

We may multiply the numbers in any order, the product would be the same.

This basic property of multiplication is called the **Order Property of Multiplication**.

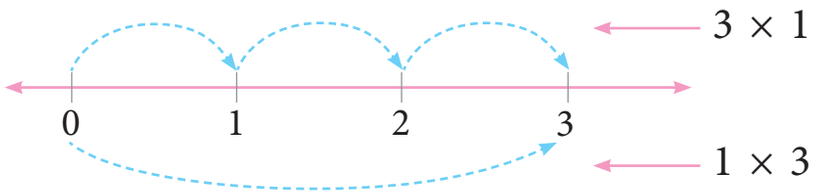
2. Multiplying by 1

3 groups of 1 = 3 × 1 = 1 + 1 + 1 = 3

1 group of 3 = 1 × 3 = 3

So, 3 × 1 = 1 × 3 = 3

We can show the above results using a number line as shown.



From the above discussion, we come to the following result.

Any number multiplied by 1 equals that number. This is called the **Multiplicative Property of 1.**

3. Multiplying by 0

There are 4 empty trays, which means 4 groups of nothing.

So, 4 × 0 = 0. Also by order property 4 × 0 = 0 × 4 = 0

Thus, **any number multiplied by 0 equals 0.** This is called **Multiplicative Property of 0.**

EXERCISE 5C

Fill in the boxes with the correct numbers.

1. 2 × 6 = ☐ × 2

2. 3 × 1 = ☐ × 3

3. 4 × 8 = ☐ × 4

4. 9 × 2 = 2 × ☐

5. ☐ × 9 = 9 × 5

6. 7 × 6 = 6 × ☐

7. 6 × 1 = ☐

8. ☐ × 7= 7

9. 9 × ☐ = 9

10. 2 × 0 = ☐

11. 0 × 6 = ☐

12. ☐ × 5 = 0

MULTIPLICATION TABLES

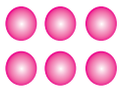
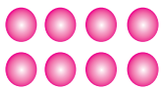
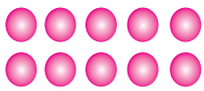
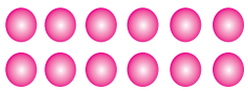
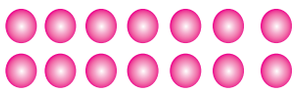
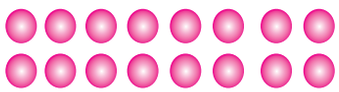
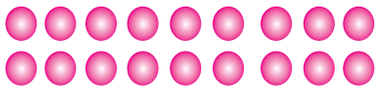
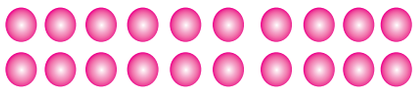
Table of 2

Repeated addition by 2s

5 groups of 2 strawberries each.

$2 + 2 + 2 + 2 + 2 = 10$

We say **5 twos are 10** or **5 times 2 is 10** or **5 multiplied by 2 is 10** and write $5 \times 2 = 10$.

	2	2 added 1 time $1 \times 2 = 2$
	$2 + 2 = 4$	2 added 2 times $2 \times 2 = 4$
	$2 + 2 + 2 = 6$	2 added 3 times $3 \times 2 = 6$
	$2 + 2 + 2 + 2 = 8$	2 added 4 times $4 \times 2 = 8$
	$2 + 2 + 2 + 2 + 2 = 10$	2 added 5 times $5 \times 2 = 10$
	$2 + 2 + 2 + 2 + 2 + 2 = 12$	2 added 6 times $6 \times 2 = 12$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 = 14$	2 added 7 times $7 \times 2 = 12$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16$	2 added 8 times $8 \times 2 = 16$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$	2 added 9 times $9 \times 2 = 18$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 20$	2 added 10 times $10 \times 2 = 20$

EXERCISE 5D

1. Complete the table of 2.

(a)

Multiplying by 2	
1 two is 2	1 × 2 = 2
2 twos are 4	2 × 2 = ☐
3 twos are ☐	3 × 2 = 6
4 twos are 8	4 × 2 = ☐
5 twos are ☐	5 × 2 = 10
6 twos are 12	6 × 2 = 12
7 twos are 14	7 × 2 = ☐
8 twos are 16	8 × 2 = 16
9 twos are ☐	9 × 2 = 18
10 twos are 20	10 × 2 = ☐

(b)

2 times table	
2 times 1 is 2	2 × 1 = ☐
2 times 2 is 4	2 × 2 = 4
2 times 3 is 6	2 × 3 = ☐
2 times 4 is ☐	2 × 4 = 8
2 times 5 is 10	2 × 5 = 10
2 times 6 is 12	2 × 6 = ☐
2 times 7 is ☐	2 × 7 = 14
2 times 8 is 16	2 × 8 = ☐
2 times 9 is ☐	2 × 9 = 18
2 times 10 is 20	2 × 10 = ☐

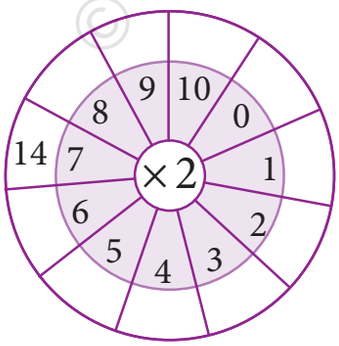
2. Count by 2s from 2 to 20.

2	4								

3. Count backwards by 2s from 20 to 2.

20	18								

4. Complete the multiplication wheel.



5. A bee has 2 wings. How many wings do 6 bees have? ☐

6. **Two toffees can be bought for 1 rupee. How many toffees can be bought for 4 rupees?**

7. **How many ears do 10 children have?**

Table of 3

Repeated addition by 3s

4 groups having 3 stars each.

3 + 3 + 3 + 3 = 12

We say three 4 times or 4 threes are 12 and write 4 × 3 = 12.

Repeated Addition	Multiplying by 3		3 times table	
3	1 three is 3	1 × 3 = 3	3 times 1 is 3	3 × 1 = 3
3 + 3 = 6	2 threes are 6	2 × 3 = 6	3 times 2 is 6	3 × 2 = 6
3 + 3 + 3 = 9	3 threes are 9	3 × 3 = 9	3 times 3 is 9	3 × 3 = 9
3 + 3 + 3 + 3 = 12	4 threes are 12	4 × 3 = 12	3 times 4 is 12	3 × 4 = 12
3 + 3 + 3 + 3 + 3 = 15	5 threes are 15	5 × 3 = 15	3 times 5 is 15	3 × 5 = 15
3 + 3 + 3 + 3 + 3 + 3 = 18	6 threes are 18	6 × 3 = 18	3 times 6 is 18	3 × 6 = 18
3 + 3 + 3 + 3 + 3 + 3 + 3 = 21	7 threes are 21	7 × 3 = 21	3 times 7 is 21	3 × 7 = 21
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 24	8 threes are 24	8 × 3 = 24	3 times 8 is 24	3 × 8 = 24
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 27	9 threes are 27	9 × 3 = 27	3 times 9 is 27	3 × 9 = 27
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30	10 threes are 30	10 × 3 = 30	3 times 10 is 30	3 × 10 = 30

EXERCISE 5E

1. Complete the table of 3.

(a)

Multiplying by 3	
1 three is 3	1 × 3 = ☐
2 threes are ☐	2 × 3 = 6
3 threes are 9	3 × 3 = ☐
4 threes are ☐	4 × 3 = 12
5 threes are 15	5 × 3 = ☐
6 threes are 18	6 × ☐ = 18
7 threes are 21	7 × ☐ = 21
8 threes are 24	8 × 3 = ☐
9 threes are 27	☐ × 3 = 27
10 threes are 30	10 × 3 = 30

(b)

3 times table	
3 times 1 is ☐	3 × 1 = 3
3 times 2 is 6	3 × 2 = 6
3 times 3 is 9	3 × 3 = ☐
3 times 4 is ☐	3 × 4 = 12
3 times 5 is 15	3 × ☐ = 15
3 times 6 is ☐	3 × 6 = 18
3 times 7 is 21	3 × 7 = ☐
3 times 8 is 24	3 × ☐ = 24
3 times 9 is 27	3 × 9 = 27
3 times 10 is 30	3 × ☐ = 30

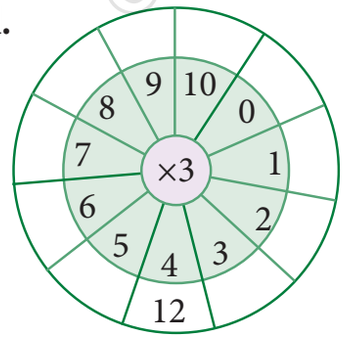
2. Count by 3s from 3 to 30.

3									

3. Count backwards by 3s from 30 to 3.

30									

4. Complete the multiplication wheel.



5. Kavita reads 3 pages of a book daily. How many pages will she read in 9 days? ☐

6. Ramesh made 5 groups of 3 notebooks each. How many notebooks are there in all?

 ☐

Table of 4

Repeated addition by 4s

3 candle stands having 4 candles each.

$4 + 4 + 4 = 12$

We say four 3 times or 3 fours are 12 and write

$3 \times 4 = 12$.

EXERCISE 5F

1. Complete the table of 4.

Repeated Addition	Multiplying by 4		4 times table	
4	1 four is 4	$1 \times 4 = 4$	4 times 1 is 4	$4 \times 1 = 4$
4 + 4	2 fours are ☐	$2 \times 4 = 8$	4 times 2 is 8	$4 \times$ ☐ $= 8$
4 + 4 + 4	3 fours are 12	$3 \times 4 =$ ☐	4 times 3 is 12	$4 \times 3 = 12$
4 + 4 + 4 + 4	4 fours are 16	$4 \times 4 = 16$	4 times 4 is 16	$4 \times 4 =$ ☐
4 + 4 + 4 + 4 + 4	5 fours are ☐	$5 \times 4 = 20$	4 times 5 is 20	$4 \times$ ☐ $= 20$
4 + 4 + 4 + 4 + 4 + 4	6 fours are 24	$6 \times 4 =$ ☐	4 times 6 is 24	$4 \times 6 = 24$
4 + 4 + 4 + 4 + 4 + 4 + 4	7 fours are 28	$7 \times 4 = 28$	4 times 7 is 28	$4 \times 7 =$ ☐
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	8 fours are 32	$8 \times 4 = 32$	4 times 8 is 32	$4 \times 8 = 32$
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	9 fours are ☐	$9 \times 4 =$ ☐	4 times 9 is 36	$4 \times$ ☐ $= 36$
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	10 fours are ☐	$10 \times 4 = 40$	4 times 10 is 40	☐ $\times 10 = 40$

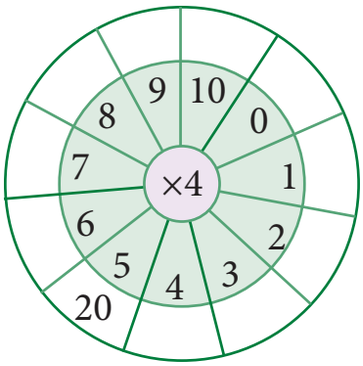
2. Count by 4s from 4 to 40.

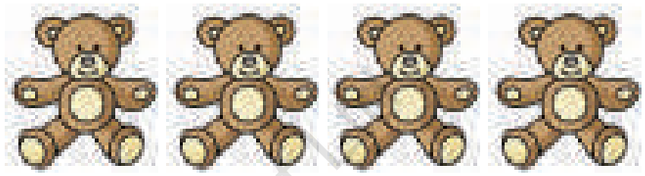
4									

3. Count backwards by 4s from 40 to 4.

40									

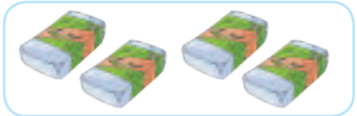
4. Complete the multiplication wheel.





5. A cat has 4 legs. How many legs do 3 cats have?

6. A box has 4 erasers. How many erasers do 8 boxes have?



7. A square has 4 sides. A triangle has 3 sides. Which have more sides – 4 squares or 6 triangles? By how much?

Table of 5

Repeated addition by 5s

4 baskets of 5 fruits each.

5 + 5 + 5 + 5 = 20

We say five 4 times or 4 fives are 20 and write 4 × 5 = 20.

EXERCISE 5G

1. Complete the table of 5.

Repeated Addition	Multiplying by 5		5 times table	
5	1 five is 5	1 × 5 = ☐	5 times 1 is 5	5 × 1 = 5
5 + 5	2 fives are ☐	2 × 5 = 10	5 times ☐ is 10	5 × ☐ = 10
5 + 5 + 5	3 fives are 15	3 × 5 = 15	5 times 3 is 15	5 × 3 = 15
5 + 5 + 5 + 5	4 fives are ☐	4 × 5 = 20	5 times 4 is 20	5 × 4 = ☐
5 + 5 + 5 + 5 + 5	5 fives are 25	5 × 5 = ☐	5 times 5 is 25	5 × ☐ = 25
5 + 5 + 5 + 5 + 5 + 5	6 fives are ☐	6 × 5 = 30	5 times ☐ is 30	5 × 6 = 30
5 + 5 + 5 + 5 + 5 + 5 + 5	7 fives are 35	7 × 5 = ☐	5 times 7 is 35	5 × 7 = ☐
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	8 fives are 40	8 × 5 = 40	5 times ☐ is 40	5 × 8 = 40
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	9 fives are ☐	9 × 5 = 45	5 times 9 is 45	5 × ☐ = 45
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	10 fives are 50	10 × 5 = ☐	5 times 10 is 50	☐ × 10 = 50

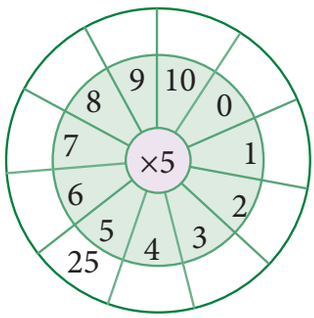
2. Count by 5s from 5 to 50.

5									

3. Count backwards by 5s from 50 to 5.

50									

4. Complete the multiplication wheel.



5. There are 5 stars on a badge. How many stars are there on 3 such badges? ☐

6. Show 5 × 4 = 20 on the given number line.

7. Write the number just after the product in each case.

(a) 1 × 5 ☐ (a) 5 × 8 ☐ (c) 10 × 5 ☐

Table of 6

Repeated addition by 6s

5 bunches each having 6 bananas

6 + 6 + 6 + 6 + 6 = 30

We say six 5 times or 5 sixes are 30 and write 5 × 6 = 30.

EXERCISE 5H

1. Complete the table of 6.

Repeated Addition	Multiplying by 6		6 times table	
6	1 six is 6	1 × 6 = ☐	6 times 1 is 6	6 × 1 = 6
6 + 6	2 sixes are 12	2 × 6 = 12	6 times 2 is 12	6 × 2 = 12
6 + 6 + 6	3 sixes are 18	3 × 6 = 18	6 times 3 is 18	6 × 3 = ☐
6 + 6 + 6 + 6	4 sixes are 24	4 × 6 = 24	6 times 4 is 24	6 × 4 = 24
6 + 6 + 6 + 6 + 6	5 sixes are 30	5 × 6 = ☐	6 times 5 is 30	6 × 5 = ☐
6 + 6 + 6 + 6 + 6 + 6	6 sixes are 36	6 × 6 = 36	6 times 6 is 36	6 × 6 = 36
6 + 6 + 6 + 6 + 6 + 6 + 6	7 sixes are 42	7 × 6 = 42	6 times 7 is 42	6 × 7 = 42
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	8 sixes are 48	8 × ☐ = 48	6 times 8 is 48	6 × 8 = ☐
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	9 sixes are 54	9 × 6 = ☐	6 times 9 is 54	6 × 9 = 54
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	10 sixes are 60	10 × 6 = 60	6 times 10 is 60	6 × 10 = 60

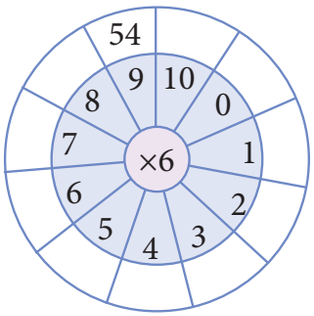
2. Count by 6s from 6 to 60.

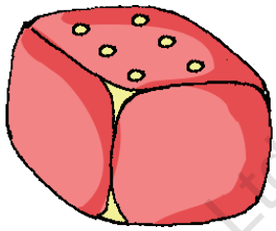
6									

3. Count backwards by 6s from 60 to 6.

60									

4. Complete the multiplication wheel.





5. A lady bug has 6 legs and a spider has 8 legs. How many legs in all do 6 lady bugs and 5 spiders have?

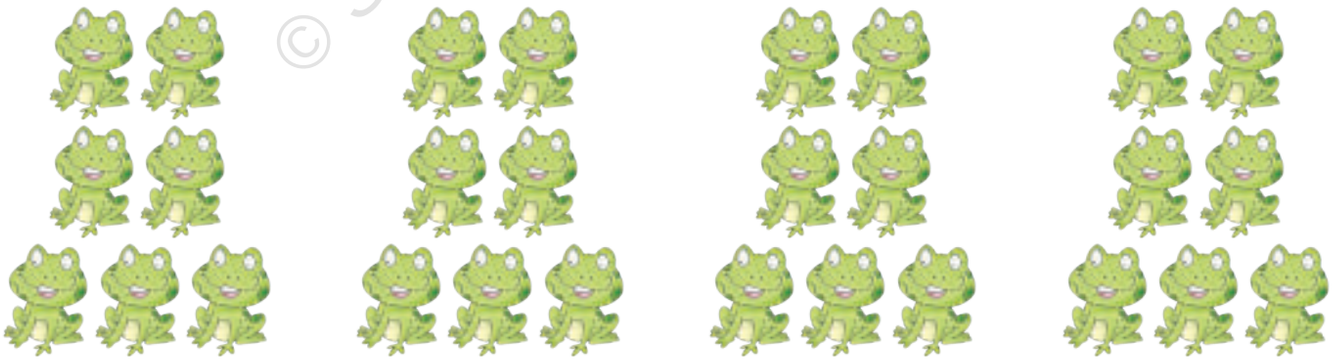
6. Write the number that comes before each product.

3 × 6	7 × 6	4 × 6	8 × 6
17			

7. Write the numbers counting by threes between 6 × 6 and 6 × 8.

Table of 7

Repeated addition by 7s



4 groups of 7 frogs each.

7 + 7 + 7 + 7 = 28

We say seven 4 times or 4 sevens are 28 and write 4 × 7 = 28.

EXERCISE 5I

1. Complete the table of 7.

Repeated Addition	Multiplying by 7		7 times table	
7	1 seven is 7	1 × 7 = 7	7 times 1 is 7	7 × 1 = 7
7 + 7	2 sevens are 14	2 × 7 = 14	7 times 2 is 14	7 × 2 = ☐
7 + 7 + 7	3 sevens are 21	3 × 7 = 21	7 times 3 is 21	7 × 3 = 21
7 + 7 + 7 + 7	4 sevens are 28	4 × 7 = 28	7 times 4 is 28	7 × 4 = ☐
7 + 7 + 7 + 7 + 7	5 sevens are 35	5 × ☐ = 35	7 times 5 is 35	7 × 5 = 35
7 + 7 + 7 + 7 + 7 + 7	6 sevens are 42	6 × 7 = 42	7 times 6 is 42	7 × 6 = ☐
7 + 7 + 7 + 7 + 7 + 7 + 7	7 sevens are 49	7 × 7 = 49	7 times 7 is 49	7 × 7 = 49
7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7	8 sevens are 56	8 × 7 = ☐	7 times 8 is 56	7 × 8 = 56
7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7	9 sevens are 63	9 × 7 = 63	7 times 9 is 63	7 × 9 = ☐
7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7	10 sevens are 70	10 × 7 = ☐	7 times 10 is 70	7 × 10 = ☐

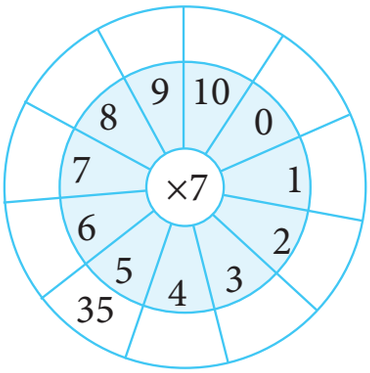
2. Count by 7s from 7 to 70.

7									

3. Count backwards by 7s from 70 to 7.

70									

4. Complete the multiplication wheel.



5. Multiply:

×	4	1	5
7	28		

×	6	2	8
7	42		

6. 7 days make a week. How many days will be there in 6 weeks? ____

7. Fill in the blanks.

(a) $7 \times 2 + 7 \times 4 = 7 \times$ _____ (b) $9 \times 7 - 6 \times 7 =$ _____ $\times 7$

Table of 8

Repeated addition by 8s

4 boxes each having 8 pencils. $8 + 8 + 8 + 8 = 32$

We say eight 4 times or 4 eights are 32 and write $4 \times 8 = 32$.

EXERCISE 5J

1. Complete the table of 8.

Repeated Addition	Multiplying by 8		8 times table	
8	1 eight is 8	$1 \times 8 = 8$	8 times 1 is ____	$8 \times 1 = 8$
$8 + 8$	2 eights are 16	$2 \times 8 =$ ____	8 times 2 is 16	$8 \times 2 =$ ____
$8 + 8 + 8$	3 eights are 24	$3 \times 8 = 24$	8 times 3 is ____	$8 \times 3 = 24$
$8 + 8 + 8 + 8$	4 eights are 32	$4 \times 8 =$ ____	8 times 4 is 32	$8 \times 4 =$ ____
$8 + 8 + 8 + 8 + 8$	5 eights are 40	$5 \times 8 = 40$	8 times 5 is ____	$8 \times 5 = 40$
$8 + 8 + 8 + 8 + 8 + 8$	6 eights are 48	$6 \times 8 = 48$	8 times 6 is 48	$8 \times 6 = 48$
$8 + 8 + 8 + 8 + 8 + 8 + 8$	7 eights are 56	$7 \times 8 = 56$	8 times 7 is 56	$8 \times$ ____ $= 56$
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8$	8 eights are 64	$8 \times 8 =$ ____	8 times 8 is 64	$8 \times 8 = 64$
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8$	9 eights are 72	$9 \times 8 = 72$	8 times 9 is ____	$8 \times 9 =$ ____
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8$	10 eights are 80	$10 \times 8 = 80$	8 times 10 is 80	$8 \times 10 = 80$

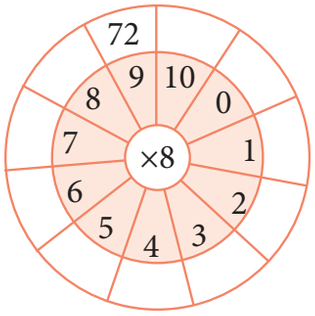
2. Count by 8s from 8 to 80.

8									

3. **Count backwards by 8s from 80 to 8.**

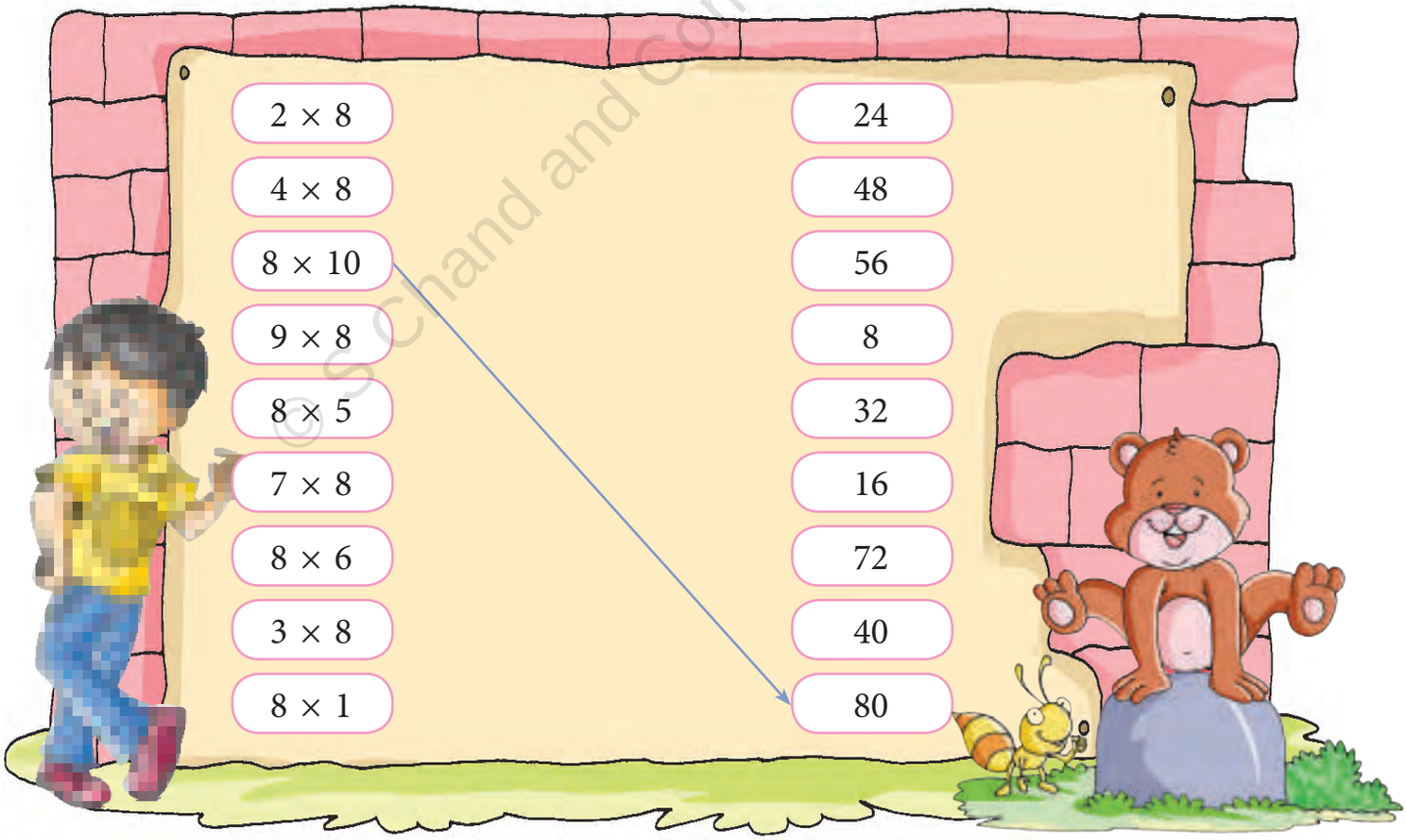
80									

4. Complete the multiplication wheel.



5. Vivek is 5 years old. His father is 8 times older than him. How old is the father?

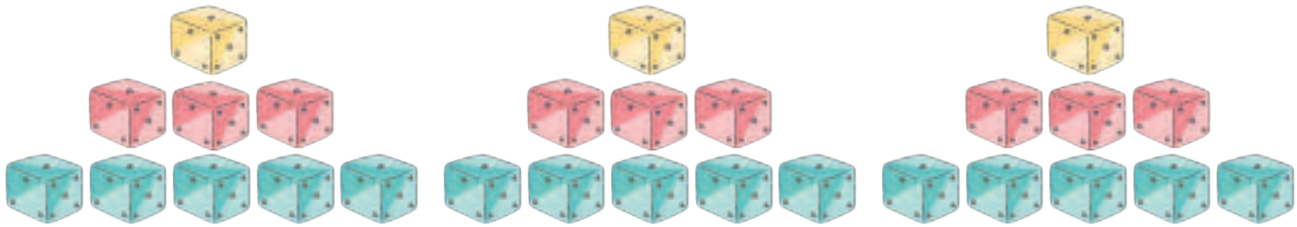
6. Multiply and match. One has been done for you.



7. Which is the missing multiplication fact from the table of 8 in question 6?

Table of 9

Repeated addition by 9s



3 heaps having 9 dice each.

9 + 9 + 9 = 27

We say nine 3 times or 3 nines are 27 and write 3 × 9 = 27.

EXERCISE 5K

1. Complete the table of 9.

Repeated Addition	Multiplying by 9		9 times table	
9	1 nine is 9	1 × 9 = ☐	9 times 1 is 9	9 × 1 = 9
9 + 9	2 nines are 18	2 × 9 = 18	9 times 2 is ☐	9 × 2 = 18
9 + 9 + 9	3 nines are 27	3 × 9 = 27	9 times 3 is 27	9 × 3 = ☐
9 + 9 + 9 + 9	4 nines are 36	4 × 9 = ☐	9 times 4 is 36	9 × 4 = 36
9 + 9 + 9 + 9 + 9	5 nines are 45	5 × 9 = 45	9 times 5 is 45	9 × 5 = ☐
9 + 9 + 9 + 9 + 9 + 9	6 nines are 54	6 × 9 = ☐	9 times 6 is 54	9 × 6 = 54
9 + 9 + 9 + 9 + 9 + 9 + 9	7 nines are 63	7 × 9 = 63	9 times 7 is 63	9 × 7 = 63
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	8 nines are 72	8 × 9 = 72	9 times ☐ is 72	9 × 8 = ☐
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	9 nines are 81	9 × 9 = ☐	9 times 9 is 81	9 × 9 = 81
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	10 nines are 90	10 × 9 = ☐	9 times 10 is 90	9 × 10 = 90

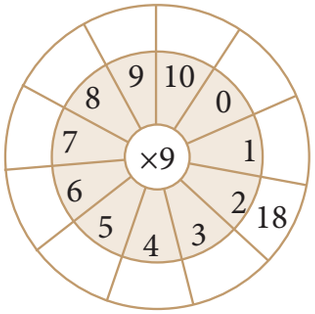
2. **Count by 9s from 9 to 90.**

9									

3. **Count backwards by 9s from 90 to 9.**

90									

4. **Complete the multiplication wheel.**



5. **Complete each multiplication fact. Then show on the number line.**

$2 \times 9 =$ _____

$9 \times 2 =$ _____

6. **Compare and write < , > or = in each ☐.**

(a) 9×3 ☐ 8×4 (b) 5×9 ☐ 7×6 (c) 9×2 ☐ 6×3

Table of 10

Repeated addition by 10s

4 bunches of 10 flowers each.

$10 + 10 + 10 + 10 = 40$

We say ten 4 times or 4 tens are 40 and write $4 \times 10 = 10$.

EXERCISE 5L

1. Complete the table of 10.

Repeated Addition	Multiplying by 10		10 times table	
10	1 ten is 10	1 × 10 = 10	10 times 1 is 10	10 × 1 = 10
10 + 10	2 tens are 20	2 × 10 = 20	10 times 2 is 20	10 × 2 = 20
10 + 10 + 10	3 tens are 30	3 × 10 = 30	10 times 3 is 30	10 × 3 = 30
10 + 10 + 10 + 10	4 tens are 40	4 × 10 = ☐	10 times 4 is 40	10 × 4 = 40
10 + 10 + 10 + 10 + 10	5 tens are 50	5 × 10 = 50	10 times 5 is 50	10 × 5 = ☐
10 + 10 + 10 + 10 + 10 + 10	6 tens are 60	6 × 10 = ☐	10 times 6 is 60	10 × 6 = 60
10 + 10 + 10 + 10 + 10 + 10 + 10	7 tens are 70	7 × 10 = 70	10 times 7 is 70	10 × 7 = 70
10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	8 tens are 80	8 × 10 = 80	10 times 8 is 80	10 × 8 = ☐
10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	9 tens are 90	9 × 10 = ☐	10 times 9 is 90	10 × 9 = 90
10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	10 tens are 100	10 × 10 = 100	10 times 10 is 100	10 × 10 = 100

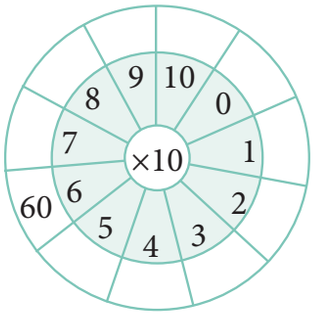
2. Count by 10s from 10 to 100.

10									

3. Count backwards by 10s from 100 to 10.

100									

4. Complete the multiplication wheel.



5. Fill in the blanks.

(a) $0 \times 10 =$ _____ (b) $9 \times 10 =$ _____

(c) $4 \times 10 =$ _____ (d) $6 \times 5 =$ _____ $\times 10$

(e) 10 eights = _____ (f) 2 less than $7 \times 10 =$ _____

6. There are 10 pencils in a pencil stand. How many pencils are there in 3 such stands?

7. A doctor sees 5 poor patients everyday for free so as to help the needy. How many patients does the doctor see for free in 10 days? What moral value is shown by the doctor?

[Value Based Question]

TABLE OF MULTIPLICATION FACTS

Memorise the multiplication facts by using the combined multiplication table.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

EXERCISE 5M

1. Complete the multiplication facts.

(a) $4 \times 5 =$ 20 (b) $8 \times 3 =$ ____ (c) $7 \times 2 =$ ____

(d) $6 \times 8 =$ ____ (e) $3 \times 0 =$ ____ (f) $9 \times 3 =$ ____

(g) $9 \times 10 =$ ____ (h) $8 \times 5 =$ ____ (i) $10 \times 6 =$ ____

(j) $5 \times 3 =$ ____ (k) $7 \times 8 =$ ____ (l) $8 \times 4 =$ ____

(m) $7 \times 6 =$ ____ (n) $9 \times 5 =$ ____ (o) $6 \times 0 =$ ____

2. Fill in the boxes with the correct numbers.

(a) $5 \times 7 = 7 \times 5 =$ ____ (b) $7 \times 9 =$ ____ $=$ 63

(c) $6 \times 8 = 8 \times 6 =$ ____ (d) ____ $= 1 \times 8 =$ 8

(e) $7 \times 2 =$ ____ $=$ 14 (f) $4 \times 6 = 6 \times 4 =$ ____

3. Write the number just after:

(a) 2×4 ____ (b) 7×9 ____ (c) 1×8 ____ (d) 5×5 ____

4. Write the number just before:

(a) 4×4 ____ (b) 9×8 ____ (c) 4×7 ____ (d) 2×7 ____

5. Write the numbers between:

(a) 3×6 and 4×6 _____ (b) 8×8 and 8×9 _____

6. Find the rule and complete the pairs.

5, 25	2, 10	4, ____	3, ____	8, ____	9, ____

WORD PROBLEMS

Example: **There are 6 chairs in each row in a classroom. How many chairs are there in 4 rows?**

Solution: To find the number of chairs in 4 rows, we multiply 4 by 6.

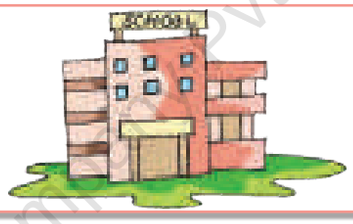
$4 \times 6 = 24$

So, there are 24 chairs in all.

EXERCISE 5N

Solve the following problems. **Workspace**

1. You go to school 5 days each week. How many days do you go to school in 4 weeks?



2. Some families are going on a picnic. If 5 people ride in each car and there are 3 cars, then how many people are going on a picnic?

3. Shikha bakes 7 cakes for a party. Each cake has 7 cherries on it. How many cherries are there on 7 cakes?

4. Sanjeev is 8 years old. His grandmother is 8 times his age. How old is Sanjeev's grandmother?

5. There were 5 tables laid for a party. At each table, 10 people were seated. How many people were there in all?

6. How many wheels are there on 8 cars if each car has 4 wheels?

7. How many rupees do you pay for 7 dolls if each doll costs 8 rupees?

Class Work

Write the correct symbol in each ☐.

A. Use the symbol +, – or ×.

1. 5 ☐ 3 = 8
2. 9 ☐ 7 = 2
3. 5 ☐ 8 = 40
4. 2 ☐ 2 ☐ 2 = 3 × 2
5. 6 ☐ 6 < 2
6. 3 ☐ 3 > 8

B. Use the symbol =, < or > .

1. 139 + 11 ☐ 148
2. 48 – 25 ☐ 25
3. 9 × 4 ☐ 15
4. 2 tens 7 ones ☐ 9 × 3
5. 1 + 1 +1 + 1 + 1 ☐ 5 × 1
6. 9 + 1 ☐ 10 × 1

CHAPTER TEST

1. Match the following.

(a) 28 (b) 90 (c) 72 (d) 8 (e) 0

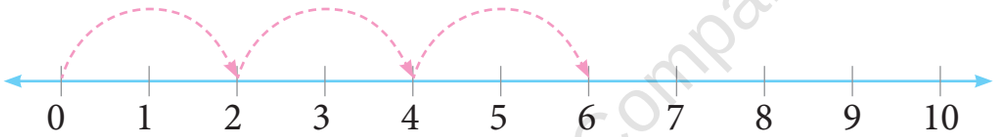
(i) 9 × 8 (ii) 8 × 0 (iii) 4 × 2 (iv) 9 × 10 (v) 7 × 4

Tick (✓) the correct answer.

2. Seema has 4 boxes of picture cards. There are 8 cards in each box. Which sentence tells how many cards Seema has in all?

(a) 4 + 8 = 12 ◯ (b) 4 × 6 = 24 ◯ (c) 4 × 8 = 32 ◯ (d) 4 × 12 = 48 ◯

3. Which two number sentences does the number line show?



(a) 2 + 4 = 6 (b) 2 + 2 + 2 = 6 (c) 3 × 2 = 6

Tick (✓) the correct option.

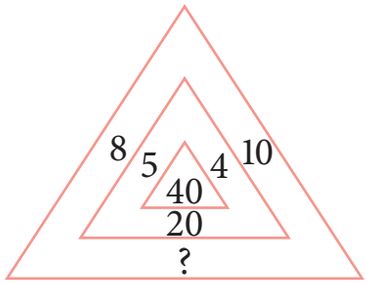
4. An octopus has 8 arms. To know the number of arms 5 octopuses have, you will

(a) add ◯ (b) multiply ◯ (c) subtract ◯

5. Cross out the statement which does not match 3 × 8.

(a) 3 groups of 8 ◯ (b) 8 groups of 3 ◯ (c) 8 + 8 + 8 ◯ (d) 3 eights ◯

6. The numbers in the diagram form a pattern.
What is the missing number?



(a) 2 ◯ (b) 18 ◯

(c) 9 ◯ (d) 42 ◯

7. 7 ◯ 4 = 8 × 5 – 2 sixes. What is the missing sign?

(a) + ◯ (b) × ◯ (c) – ◯

Worksheet

Crossword

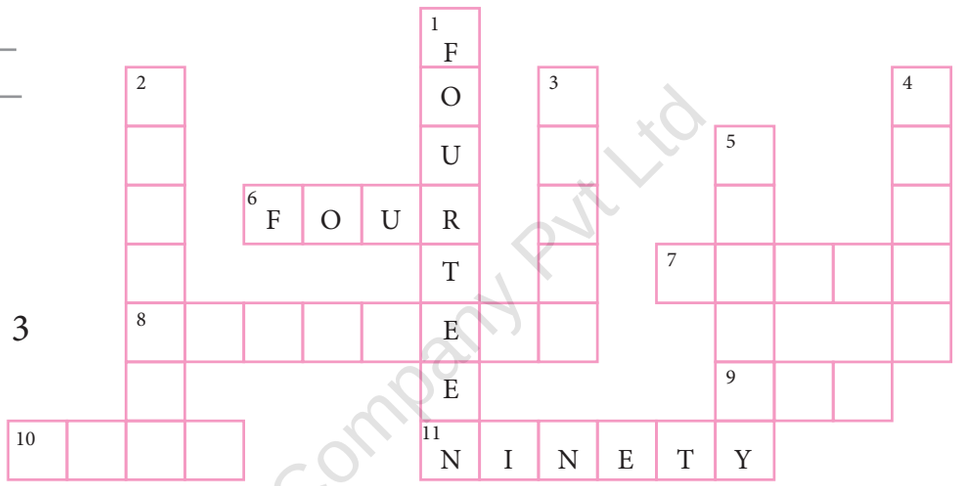
Fill in the blanks in the given clues. Then complete the crossword by writing the answers in words. We have filled some blanks to guide you.

Across

6. _____ sevens = 28
7. 8 × _____ = 64
8. 3 times 6 = _____
9. 5 × 4 = 2 × _____
10. _____ × 5 = 45
11. 10 × 9 = _____

Down

1. Double of 7
2. Successor of 5 times 3
3. _____ × 9 = 63
4. 5 × _____ = 40
5. 6 fives = _____



Mental Maths

Fill in the blanks and boxes.

1. 3 sixes = 2 _____

2. 9 times 8 + 8 = _____ tens

3. If ☐ is 6, then ☐ + ☐ + ☐ + ☐ + ☐ + ☐ = _____ = 4 × _____

4. What will be the next four numbers in the given skip counting pattern?
55, 50 ☐, ☐, ☐, ☐

5. ☐ × 10 = 0

6. 9 × 9 = _____ ones

HOTS

1. I am a 2-digit number.
2. I am less than 50.
3. Count in sixes and there I am !
4. When you divide my tens digit by my ones digit you get 2.
Who am I?

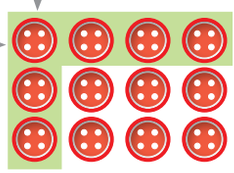
Activity

An **array** is a group of objects in rows and columns. An array can be used to represent a multiplication fact. Observe the following example.

3 rows of 4 buttons can be shown as:

Column

Row →

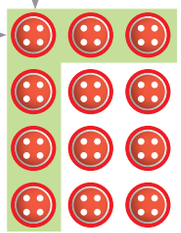


3 rows of 4 buttons each = 4 + 4 + 4
= 3 × 4
= 12

Similarly, 4 rows of 3 buttons can be shown as:

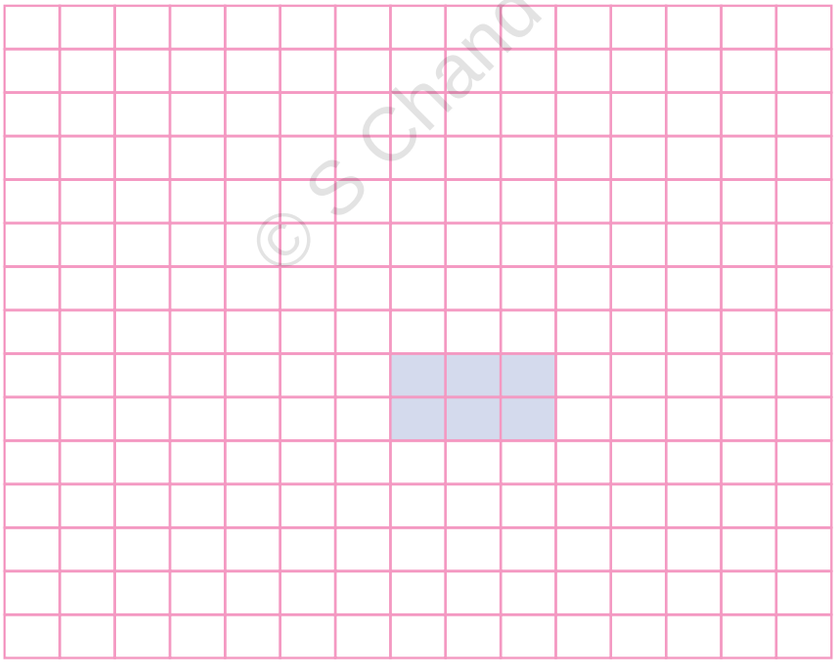
Column

Row →



4 rows of 3 buttons each = 3 + 3 + 3 + 3
= 4 × 3
= 12

Now, using this concept of arrays, you have to design a quilt in the given grid using 6 different colours. Each colour represents a different product (picturised by an array). Make a list of the colours and products you use, and then colour the quilt accordingly. One has been done for you.



1. 2 × 3 = 6
   6 blue squares
2. ____ × ____ =
   _____ squares
3. ____ × ____ =
   _____ squares
4. ____ × ____ =
   _____ squares
5. ____ × ____ =
   _____ squares
6. ____ × ____ =
   _____ squares

Now, lets see whose quilt is the most beautiful.

6 More on Multiplication

MULTIPLYING A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER

Study the following examples.

1.

T	O
2	1
×	3
6	3

Step 1: **Multiply the ones:** 3 × 1 one = 3 ones
Write 3 in the ones place.

Step 2: **Multiply the tens:** 3 × 2 tens = 6 tens
Write 6 in the tens place.

2.

H	T	O
	5	0
×		7
3	5	0

Step 1: **Multiply the ones:** 7 × 0 ones = 0 ones
Write 0 in the ones place.

Step 2: **Multiply the tens:** 7 × 5 tens = 35 tens
Write 5 in the tens place and 3 in the hundreds place.

EXERCISE 6A

1. Multiply:

(a)

T	O
3	2
×	3

(b)

T	O
2	3
×	3

(c)

T	O
2	4
×	2

(d)

H	T	O
	4	3
×		3

(e)

H	T	O
	7	0
×		4

(f)

H	T	O
	9	2
×		3

(g)

H	T	O
	2	0
×		8

(h)

H	T	O
	5	1
×		9

2. Find the product.

(a)

H	T	O
	4	1
×		8

(b)

H	T	O
	8	0
×		3

(c)

H	T	O
	7	2
×		4

(d)

H	T	O
	6	1
×		8

(e)

H	T	O
	7	1
×		9

(f)

H	T	O
	8	1
×		6

(g)

H	T	O
	8	3
×		2

(h)

H	T	O
	9	1
×		8

MULTIPLYING A 3-DIGIT NUMBER BY A 1-DIGIT NUMBER

Let us multiply 432 by 2.

Method 1: Using the expanded form of multiplicand

$$\begin{aligned} 432 \times 2 &= (400 + 30 + 2) \times 2 \\ &= (400 \times 2) + (30 \times 2) + (2 \times 2) \\ &= 800 + 60 + 4 \\ &= 864 \end{aligned}$$

Method 2: Short method

Step 1: Arrange the numbers as shown on the right.

H	T	O
4	3	2
×		2
8	6	4

Step 2: **Multiply the ones.**

2 × 2 ones = 4 ones

Write 4 in the ones place.

Step 3: **Multiply the tens.**

2 × 3 tens = 6 tens

Write 6 in the tens place.

Step 4: **Multiply the hundreds.**

2 × 4 hundreds = 8 hundreds

Write 8 in the hundreds place.

EXERCISE 6B

Multiply:

1.

H	T	O
2	4	3
×		2

2.

H	T	O
2	1	1
×		3

3.

H	T	O
2	2	2
×		4

4.

H	T	O
4	3	4
×		2

5.

H	T	O
2	2	1
×		2

6.

H	T	O
3	1	2
×		2

7.

H	T	O
2	1	3
×		3

8.

H	T	O
2	1	0
×		4

9.

H	T	O
3	7	9
×		0

10.

H	T	O
3	0	3
×		3

11.

H	T	O
2	2	0
×		4

12.

H	T	O
4	0	1
×		2

MULTIPLICATION BY 10, 20, 30, ..., 100

Study the following examples.

$32 \times 20 = 32 \times (2 \times 10)$
$= (32 \times 2) \times 10$
$= 64 \times 10$
$= 640$

Short Method

Multiply 32 by 2 and get 64.

Put 0 at the extreme right in the ones place.

So, $32 \times 20 = 640$

T	O
3	2
×	2
6	4

$3 \times 200 = 3 \times (2 \times 100)$
$= (3 \times 2) \times 100$
$= 6 \times 100$
$= 600$

Short Method

Put zeros in the ones and tens places.

Multiply 2 by 3 and get 6.

So, $3 \times 200 = 600$

H	T	O
2	0	0
×		3
6	0	0

EXERCISE 6C

1. Write the product in the boxes.

(a) $15 \times 10 =$ 150 (Put 0; Multiply 15 by 1.)

(b) $34 \times 20 =$ ☐

(c) $4 \times 60 =$ ☐

(d) $5 \times 80 =$ ☐

(e) $43 \times 20 =$ ☐

(f) $10 \times 40 =$ ☐

(g) $20 \times 9 =$ ☐

(h) $31 \times 30 =$ ☐

(i) $10 \times 80 =$ ☐

2. Fill in the boxes.

$4 \times 2 =$ ☐	$4 \times 20 =$ ☐	$4 \times 200 =$ ☐
$3 \times 3 =$ ☐	$3 \times 30 =$ ☐	$3 \times 300 =$ ☐
$7 \times 100 =$ 700 (Multiply 7 by 1.)	$9 \times 80 =$ ☐	$5 \times 200 =$ ☐

MULTIPLICATION OF A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER (With Carrying)

Let us multiply 36 by 4.

3-Step Method

H	T	O
	3	6
×		4
	2	4
1	2	0
1	4	4

Step 1: Multiply 4 by 6

Step 2: Multiply 4 by 3 tens or 30

Step 3: Add the particular products 24 + 120

Short Method

H	T	O
	2	← Carry
	3	6
×		4
1	4	4

Step 1: 4 × 6 ones = 24 ones = 2 tens 4 ones
Write 4 in the ones place and carry 2 to the tens place.

Step 2: 4 × 3 tens = 12 tens
12 tens + 2 tens (carried over) = 14 tens
= 1 hundred 4 tens
Write 4 in the tens place and 1 in the hundreds place.

EXERCISE 6D

Use the short method to find the product.

1.

H	T	O
	5	8
×		3

2.

H	T	O
	3	4
×		7

3.

H	T	O
	1	6
×		4

4.

H	T	O
	3	5
×		5

5.

H	T	O
	1	4
×		7

6.

H	T	O
	2	7
×		6

7.

H	T	O
	4	5
×		9

8.

H	T	O
	3	5
×		4

9.

H	T	O
	5	6
×		5

10.

H	T	O
	7	5
×		6

11.

H	T	O
	3	8
×		4

12.

H	T	O
	4	5
×		6

MULTIPLICATION OF A 3-DIGIT NUMBER BY A 1-DIGIT NUMBER (With Carrying)

Let us multiply 219 by 3.

4-Step Method

H	T	O
2	1	9
×		3
	2	7
	3	0
6	0	0
6	5	7

Step 1: $3 \times 9 = 27$

Step 2: $3 \times 10 = 30$

Step 3: $3 \times 200 = 600$

Step 4: $27 + 30 + 600 = 657$

Short Method

H	T	O
	(2)	
2	1	9
×		3
6	5	7

Carry

Step 1: **Multiply the ones.**
3×9 ones = 27 ones = 2 tens 7 ones
Write 7 in the ones place and carry 2 to the tens place.

Step 2: **Multiply the tens.**
3×1 ten = 3 tens
3 tens + 2 tens (carried over) = 5 tens
Write 5 in the tens place.

Step 3: **Multiply the hundreds.**
3×2 hundreds = 6 hundreds
Write 6 in the hundreds place.

EXERCISE 6E

1. Multiply:

(a)

H	T	O
1	2	3
×		4

(b)

H	T	O
2	1	5
×		3

(c)

H	T	O
1	1	2
×		5

(d)

H	T	O
1	4	5
×		2

2. Find the product.

(a)

H	T	O
1	9	2
×		5

(b)

H	T	O
2	3	8
×		4

(c)

H	T	O
2	0	8
×		4

(d)

H	T	O
4	3	5
×		2

(e)

H	T	O
2	1	9
×		4

(f)

H	T	O
1	0	9
×		7

(g)

H	T	O
4	2	6
×		2

(h)

H	T	O
3	1	7
×		3

WORD PROBLEMS

Example: **Radhika's mother buys 4 bananas everyday for her family. How many bananas will she buy in 92 days?**

Solution: To get the total number of bananas bought by Radhika's mother we multiply 92 by 4.

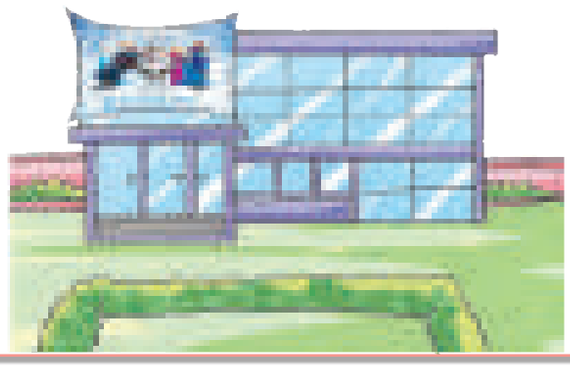
So, Radhika's mother will buy 368 bananas in all.

H	T	O
	9	2
×		4
3	6	8

EXERCISE 6F

Workspace

1. There are 4 theatres in a city. Each theatre has 224 seats. How many seats are there in all?



H	T	O
×		

Ans:_____ seats.

2. A small box weighs 46 grams. How much do 8 such boxes weigh?

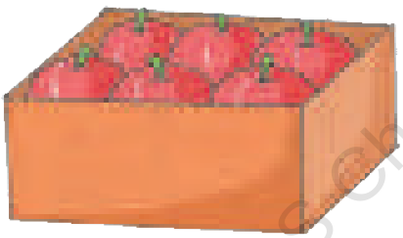
H	T	O
×		

Ans:_____ grams.

3. Mrs Mishra knits 45 scarves in a month and distributes them in an old age home. If she knits the same number of scarves each month, how many scarves does she knit in 5 months? What moral value is shown by Mrs Mishra? **[Value Based Question]**

H	T	O
×		

Ans:_____ scarves.



4. A fruit seller sold 115 boxes of apples to a school. Each box had 6 apples. How many apples in all were sold to the school?

H	T	O
×		

Ans:_____ apples.

5. Rohit has nine 50-rupee notes and four 100-rupee notes. How much money in all does he have?

H	T	O
×		

H	T	O
×		

Ans:_____ rupees.

CHAPTER TEST

1. Multiply:

(a)

H	T	O
	8	3
×		3

(b)

H	T	O
	9	6
×		7

(c)

H	T	O
	7	5
×		8

(d)

H	T	O
1	2	6
×		3

2. A grocer sells 105 bags of carrots. Each bag has 5 carrots. How many carrots in all does the grocer sell? _____ carrots.

3. 3 × 7 tens = _____

4. 4 × 2 × _____ = 80 tens

Tick (✓) the correct answer.

5. 5 × 8 tens = _____

(a) 40 hundreds ◯ (b) 40 ones ◯ (c) 4 tens ◯ (d) 4 hundreds ◯

6. In a bookcase, there are 22 books in each of the 8 shelves. How many books are there in the bookcase?

(a) 166 ◯ (b) 116 ◯ (c) 176 ◯ (d) 186 ◯

7. 13 groups from a school have gone for picnics. Each group has 40 students. How many students in all have gone for the picnic?

(a) 502 ◯ (b) 420 ◯ (c) 520 ◯ (d) 402 ◯

8. The newspaper boy delivers 114 newspapers everyday. How many newspapers does he deliver in 5 days?

(a) 550 ◯ (b) 520 ◯ (c) 460 ◯ (d) 570 ◯

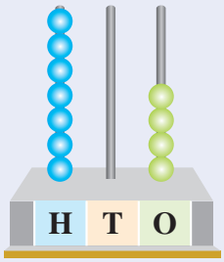
HOTS

It costs ₹ 12 to send a letter by post and ₹ 28 to send it by courier. How much in all would it cost to send 6 letters by post and 4 letters by courier?

Model Test Paper – 1

(Based on Chapters 2 to 6)

1. Write the number shown on the abacus in



(a) Standard form: _____

(b) Expanded form: _____

(c) Word form: _____

2. (a) What is the sum of 286 and 387?

(b) What is difference between 813 and 576?

3. Counting by threes write three numbers starting from 214. _____, _____, _____

4. Anju needs to reserve 22 tables in a restaurant for a party. If each table can seat 8 persons, how many people will be attending the party?

5. Nimisha kept 5 crates with 20 eggs each one over the other. How many eggs are there in all?

Tick (✓) the correct answer.

6. The number that comes after 3 hundreds 90 ones is

(a) 390 ◯ (b) 391 ◯ (c) 392 ◯ (d) 389 ◯

7. _____ is 2 hundreds less than the sum of 149 and 528.

(a) 657 ◯ (b) 877 ◯ (c) 457 ◯ (d) 477 ◯

8. A bicycle renting shop rents 33 bicycles every week. How many bicycles are rented in 7 weeks?

(a) 221 bicycles ◯ (b) 212 bicycles ◯

(c) 231 bicycles ◯ (d) 321 bicycles ◯

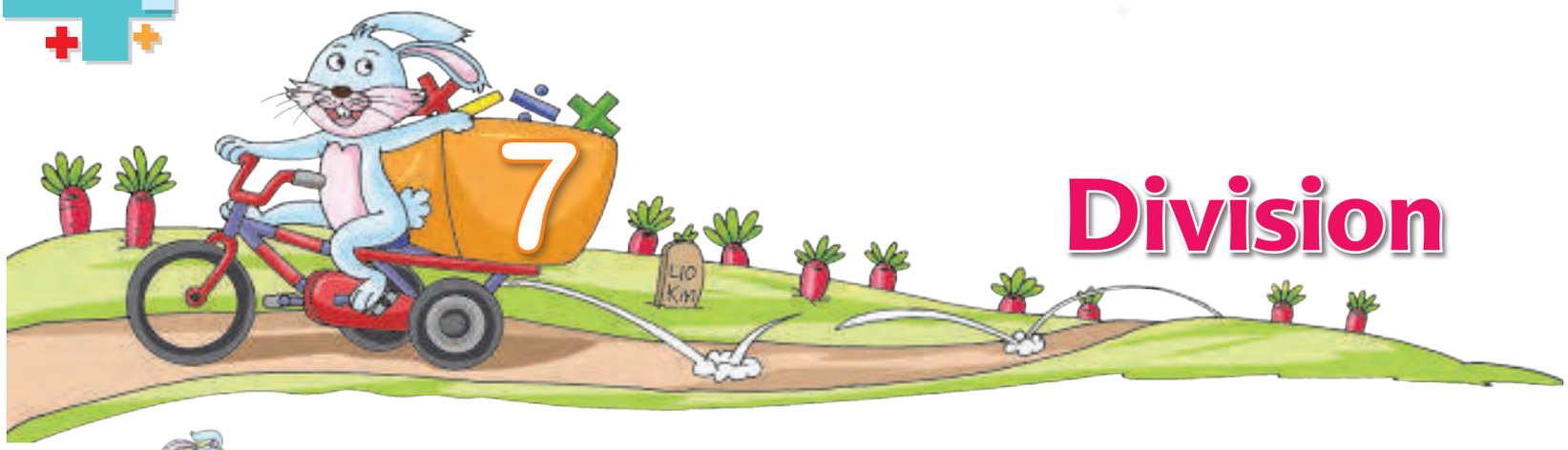
9. What is the sum of the greatest and smallest number among the following?

628 352 253 278

(a) 818 ◯ (b) 981 ◯ (c) 881 ◯ (d) 891 ◯

10. The difference between the place value of 3 and 7 in the number "three hundred seventy-five" is _____

(a) 370 ◯ (b) 230 ◯ (c) 300 ◯ (d) 70 ◯



Division

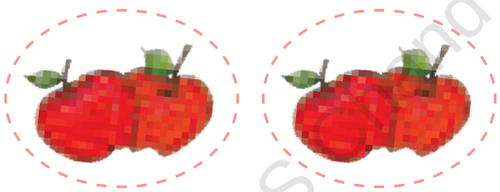
Warm Up

12 toffees have been divided equally among 4 boys. How many toffees shall each boy get?

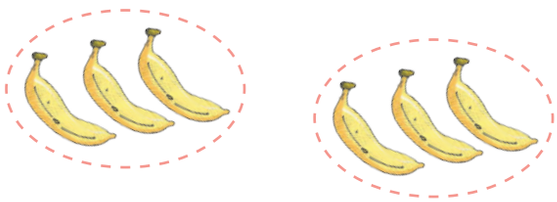
Ma'am each boy will get 12 ÷ 4 = 3 toffees.

You are right. The process of separating into equal groups is called **Division**.

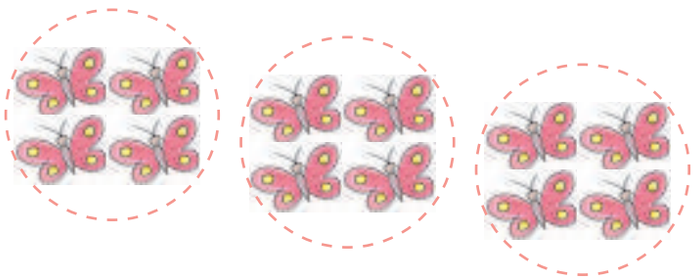
EQUAL SHARING OR EQUAL GROUPING



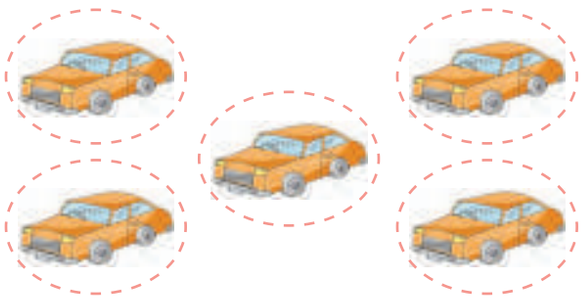
4 apples in 2 groups
2 apples in each group



6 bananas in 2 groups
3 bananas in each group



12 butterflies in 3 groups
4 butterflies in each group



5 cars in 5 groups
1 car in each group

Maths Lab Activity (Teacher to Assist)

15 strawberries are divided equally among 3 sisters. How many strawberries shall each sister get?

This is same as dividing 15 counters into 3 equal groups. Form groups of 5 children each.

Give each group 3 paper plates and 15 counters or buttons. Now tell them, they are going to make 3 equal groups of 15 counters.

- Have students put one counter on each plate and repeat this unit all the counters are placed on the plates.
- Let them count the counters on each plate, that is 5 counters.

So, 15 counters divided into 3 equal groups means each group containing 5 counters.

This is written as $15 \div 3 = 5$ or $3\overline{)15}\ \ 5$ where '÷' is the sign of division.

So, now how many strawberries does each sister get? _____

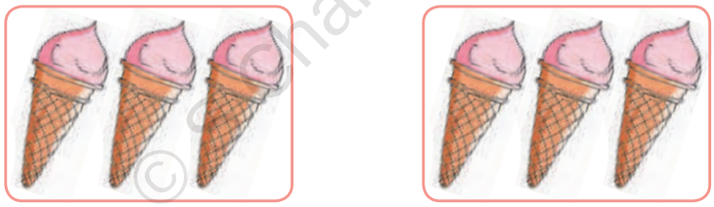
The teacher can make the child practise more equal grouping sums like this by giving them counters and paper plates.

(a) 12 counters into 4 equal groups
(b) 20 counters into 5 equal groups
(c) 18 counters into 6 equal groups
(d) 14 counters into 2 equal groups

DIVIDING EQUALLY

Look at the following examples.

1. Divide 6 softies into 2 equal groups.

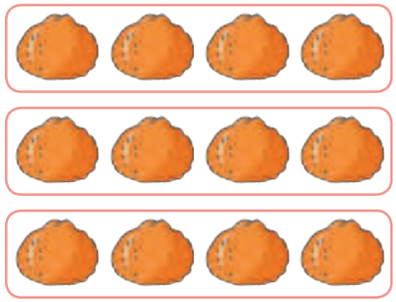


The picture shows that there are 3 softies in each group.

We say **6 divided by 2 is 3 and write** $6 \div 2 = 3$.

This is called division.

Division, thus means dividing or separating into equal groups.



2. Divide 12 oranges into 3 equal groups.

The picture on the right shows that there are 4 oranges in each group.

We say **12 divided by 3 is 4 and write** $12 \div 3 = 4$.

$12 \div 3 = 4$

Total number of oranges to be divided

Number of groups

Number of oranges in each group

EXERCISE 7A

Fill in the boxes by dividing the pictures in equal groups. One has been done for you.

1. 4 children share 8 balls equally.

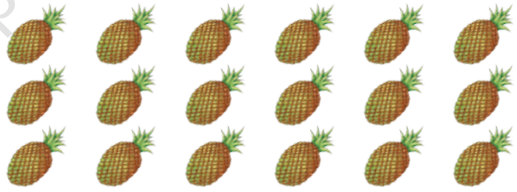
$8 \div 4 =$ 2

1 child gets 2 balls.

2. 18 pineapples are shared equally among 3 boys.

$18 \div 3 =$ ☐

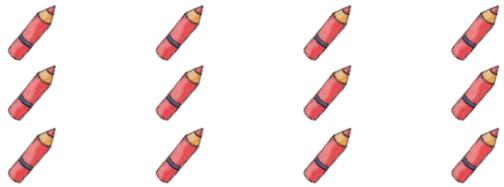
1 boy gets ☐ pineapples.



3. 12 crayons are shared equally among 4 children.

$12 \div 4 =$ ☐

1 child gets ☐ crayons.



4. 15 pencils are shared equally among 3 girls.

$15 \div 3 =$ ☐

1 girls gets ☐ pencils.

5. 21 mangoes are put equally in 7 bags.

$21 \div 7 =$ ☐

1 bag has ☐ mangoes.

6. 10 children are seated equally in 5 cars.

$10 \div 5 =$ ☐

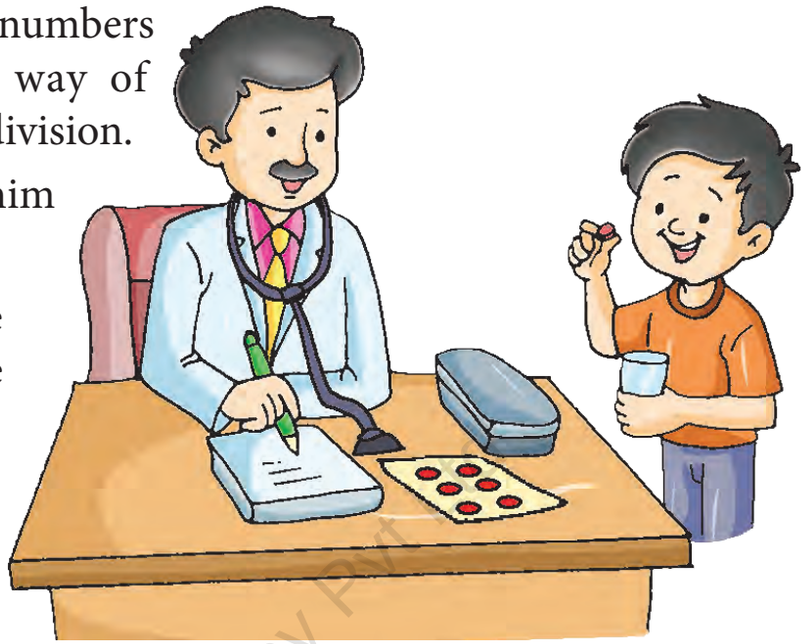
In 1 car, there are ☐ children.

DIVISION AS REPEATED SUBTRACTION

The short way of adding equal numbers is multiplication. The short way of subtracting equal numbers is division.

Hari was ill. The doctor gave him 8 tablets.

For how many days did the medicine last, if he had to take 2 tablets daily?



First day :	 8 – 2 = 6	6 tablets remained
Second day :	 6 – 2 = 4	4 tablets remained
Third day :	 4 – 2 = 2	2 tablets remained
Fourth day :	 2 – 2 = 0	All tablets taken. No tablet is left.

The medicine lasted 4 days. Here, 2 has been subtracted 4 times from 8 to get 0. Instead of subtracting 2 separately 4 times, we can write in short as

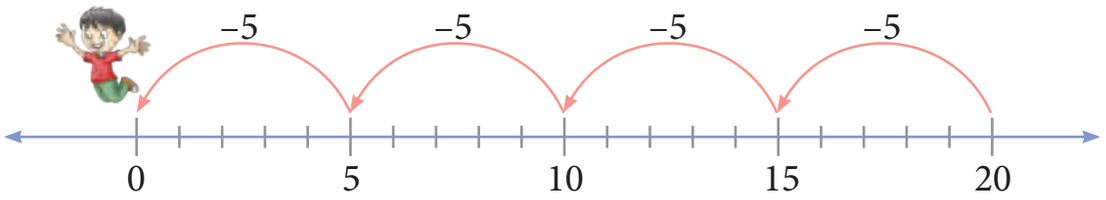
$8 \div 2 = 4$ or $2\overline{)8}$ with quotient 4

From the above explanation, we can say that division is actually repeated subtraction.

DIVISION AS REPEATED SUBTRACTION ON THE NUMBER LINE

How many times can you subtract 5 from 20?

Show on the number line.



Start at 20. Hop 5 to the left in 1 time. In the fourth time, you will reach at 0.

So, 20 ÷ 5 = 4

20
– 5
15
– 5
10
– 5
5
– 5
0

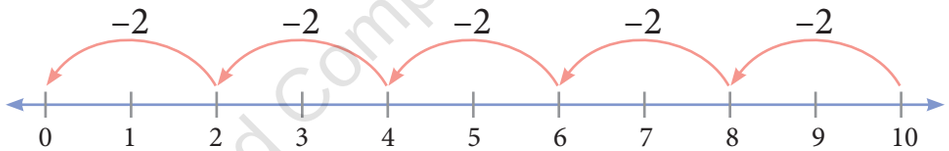
Class Work

Show each division statement on the number line.

10 ÷ 2 = ☐

How many times can you subtract 2 from 10?

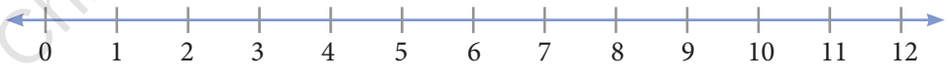
5 times



12 ÷ 6 = ☐

How many times can you subtract 6 from 12?

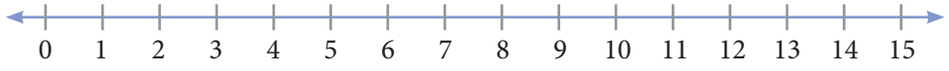
☐ times



15 ÷ 3 = ☐

How many times can you subtract 3 from 15?

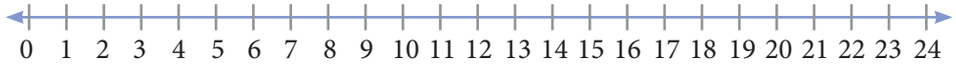
☐ times



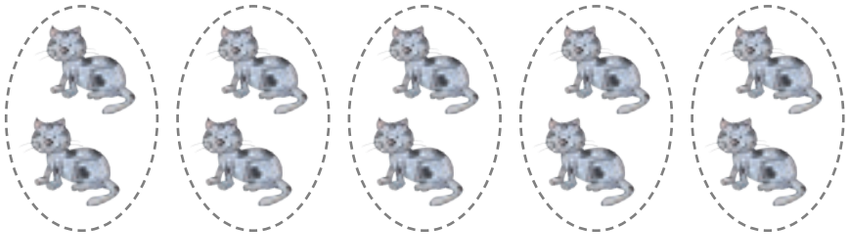
24 ÷ 4 = ☐

How many times can you subtract 4 from 24?

☐ times



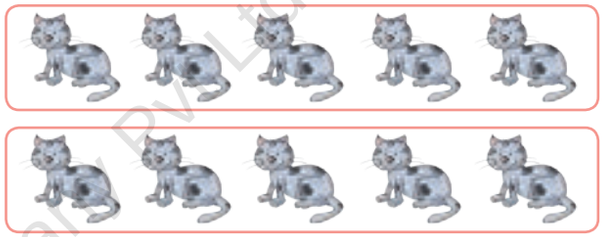
MULTIPLICATION AND DIVISION ARE RELATED



The picture shows 10 cats arranged in groups of 2.

It shows a multiplication fact : $5 \times 2 = 10$ and a division fact : $10 \div 2 = 5$.

10 cats can also be arranged in groups of 5 as shown.



So, $2 \times 5 = 10$, the division fact for $2 \times 5 = 10$ is $10 \div 5 = 2$.

A few more examples are given below.

Multiplication Facts	Division Facts
$2 \times 3 = 6$ or $3 \times 2 = 6$	$6 \div 3 = 2$ or $6 \div 2 = 3$
$5 \times 6 = 30$ or $6 \times 5 = 30$	$30 \div 6 = 5$ or $30 \div 5 = 6$
$8 \times 7 = 56$ or $7 \times 8 = 56$	$56 \div 7 = 8$ or $56 \div 8 = 7$
$9 \times 4 = 36$ or $4 \times 9 = 36$	$36 \div 4 = 9$ or $36 \div 9 = 4$
$7 \times 7 = 49$	$49 \div 7 = 7$

DIVISION BY 2, 3,..., 9

Fill in the boxes with the correct numbers.

Division by 2

$1 \times 2 = 2$	$2 \div 2 = 1$	$2\overline{)2}$ (1)	$2 \times 2 = 4$	$4 \div 2 = 2$	$2\overline{)4}$ (2)
$3 \times 2 = 6$	$6 \div 2 = 3$	$2\overline{)6}$ (3)	$4 \times 2 =$ 8	$8 \div 2 =$	$2\overline{)8}$
$5 \times 2 =$	$10 \div 2 =$	$2\overline{)10}$	$6 \times 2 =$	$12 \div 2 =$	$2\overline{)12}$
$7 \times 2 =$	$14 \div 2 =$	$2\overline{)14}$	$8 \times 2 =$	$16 \div 2 =$	$2\overline{)16}$
$9 \times 2 =$	$18 \div 2 =$	$2\overline{)18}$	$10 \times 2 =$	$20 \div 2 =$	$2\overline{)20}$

Division by 3

$1 \times 3 = 3$	$3 \div 3 = 1$	$3\overline{)3}$ (1)	$2 \times 3 = 6$	$6 \div 3 = 2$	$3\overline{)3}$ (2)
$3 \times 3 =$	$9 \div 3 =$	$3\overline{)9}$	$4 \times 3 =$	$12 \div 3 =$	$3\overline{)12}$
$5 \times 3 =$	$15 \div 3 =$	$3\overline{)15}$	$6 \times 3 =$	$18 \div 3 =$	$3\overline{)18}$
$7 \times 3 =$	$21 \div 3 =$	$3\overline{)21}$	$8 \times 3 =$	$24 \div 3 =$	$3\overline{)24}$
$9 \times 3 =$	$27 \div 3 =$	$3\overline{)27}$	$10 \times 3 =$	$30 \div 3 =$	$3\overline{)30}$

Division by 4

$1 \times 4 = 4$	$4 \div 4 = 1$	$4\overline{)4}$ quotient 1
$2 \times 4 = 8$	$8 \div 4 = 2$	$4\overline{)8}$ quotient 2
$3 \times 4 =$	$12 \div 4 =$	$4\overline{)12}$
$4 \times 4 =$	$16 \div 4 =$	$4\overline{)16}$
$5 \times 4 =$	$20 \div 4 =$	$4\overline{)20}$
$6 \times 4 =$	$24 \div 4 =$	$4\overline{)24}$
$7 \times 4 =$	$28 \div 4 =$	$4\overline{)28}$
$8 \times 4 =$	$32 \div 4 =$	$4\overline{)32}$
$9 \times 4 =$	$36 \div 4 =$	$4\overline{)36}$
$10 \times 4 =$	$40 \div 4 =$	$4\overline{)40}$

Division by 5

$1 \times 5 = 5$	$5 \div 5 = 1$	$5\overline{)5}$ quotient 1
$2 \times 5 = 10$	$10 \div 5 = 2$	$5\overline{)10}$ quotient 2
$3 \times 5 =$	$15 \div 5 =$	$5\overline{)15}$
$4 \times 5 =$	$20 \div 5 =$	$5\overline{)20}$
$5 \times 5 =$	$25 \div 5 =$	$5\overline{)25}$
$6 \times 5 =$	$30 \div 5 =$	$5\overline{)30}$
$7 \times 5 =$	$35 \div 5 =$	$5\overline{)35}$
$8 \times 5 =$	$40 \div 5 =$	$5\overline{)40}$
$9 \times 5 =$	$45 \div 5 =$	$5\overline{)45}$
$10 \times 5 =$	$50 \div 5 =$	$5\overline{)50}$

Division by 6

$10 \times 6 =$ 60	$60 \div 6 =$ 10	$6\overline{)60}$ 10	$2 \times 6 =$ ☐	$12 \div 6 =$ ☐	$6\overline{)12}$ ☐
$5 \times 6 =$ ☐	$30 \div 6 =$ ☐	$6\overline{)30}$ ☐	$4 \times 6 =$ ☐	$24 \div 6 =$ ☐	$6\overline{)24}$ ☐
$8 \times 6 =$ ☐	$48 \div 6 =$ ☐	$6\overline{)48}$ ☐	$6 \times 6 =$ ☐	$36 \div 6 =$ ☐	$6\overline{)36}$ ☐
$9 \times 6 =$ ☐	$54 \div 6 =$ ☐	$6\overline{)54}$ ☐	$1 \times 6 =$ ☐	$6 \div 6 =$ ☐	$6\overline{)6}$ ☐
$7 \times 6 =$ ☐	$42 \div 6 =$ ☐	$6\overline{)42}$ ☐	$3 \times 6 =$ ☐	$18 \div 6 =$ ☐	$6\overline{)18}$ ☐

Division by 7

$5 \times 7 =$ 35	$35 \div 7 =$ 5	$7\overline{)35}$ 5	$3 \times 7 =$ ☐	$21 \div 7 =$ ☐	$7\overline{)21}$ ☐
$9 \times 7 =$ ☐	$63 \div 7 =$ ☐	$7\overline{)63}$ ☐	$1 \times 7 =$ 7	$7 \div 7 =$ 1	$7\overline{)7}$ 1
$6 \times 7 =$ ☐	$42 \div 7 =$ ☐	$7\overline{)42}$ ☐	$8 \times 7 =$ ☐	$56 \div 7 =$ ☐	$7\overline{)56}$ ☐
$7 \times 7 =$ ☐	$49 \div 7 =$ ☐	$7\overline{)49}$ ☐	$4 \times 7 =$ ☐	$28 \div 7 =$ ☐	$7\overline{)28}$ ☐
$10 \times 7 =$ ☐	$70 \div 7 =$ ☐	$7\overline{)70}$ ☐	$2 \times 7 =$ ☐	$14 \div 7 =$ ☐	$7\overline{)14}$ ☐

Division by 8

$3 \times 8 =$ 24 $\quad 24 \div 8 =$ 3 $\quad 8\overline{)24}$ (3)

$6 \times 8 =$ ☐ $\quad 48 \div 8 =$ ☐ $\quad 8\overline{)48}$ (☐)

$5 \times 8 =$ ☐ $\quad 40 \div 8 =$ ☐ $\quad 8\overline{)40}$ (☐)

$4 \times 8 =$ ☐ $\quad 32 \div 8 =$ ☐ $\quad 8\overline{)32}$ (☐)

$10 \times 8 =$ ☐ $\quad 80 \div 8 =$ ☐ $\quad 8\overline{)80}$ (☐)

$7 \times 8 =$ ☐ $\quad 56 \div 8 =$ ☐ $\quad 8\overline{)56}$ (☐)

$9 \times 8 =$ ☐ $\quad 72 \div 8 =$ ☐ $\quad 8\overline{)72}$ (☐)

$8 \times 8 =$ ☐ $\quad 64 \div 8 =$ ☐ $\quad 8\overline{)64}$ (☐)

Division by 9

$4 \times 9 =$ 36 $\quad 36 \div 9 =$ 4 $\quad 9\overline{)36}$ (4)

$8 \times 9 =$ ☐ $\quad 72 \div 9 =$ ☐ $\quad 9\overline{)72}$ (☐)

$7 \times 9 =$ ☐ $\quad 63 \div 9 =$ ☐ $\quad 9\overline{)63}$ (☐)

$10 \times 9 =$ ☐ $\quad 90 \div 9 =$ ☐ $\quad 9\overline{)90}$ (☐)

$6 \times 9 =$ ☐ $\quad 54 \div 9 =$ ☐ $\quad 9\overline{)54}$ (☐)

$9 \times 9 =$ ☐ $\quad 81 \div 9 =$ ☐ $\quad 9\overline{)81}$ (☐)

Division by 10

$2 \times 10 =$ 20 $\quad 20 \div 10 =$ 2 $\quad 10\overline{)20}$ (2)

$8 \times 10 =$ ☐ $\quad 80 \div 10 =$ ☐ $\quad 10\overline{)80}$ (☐)

$10 \times 10 =$ ☐ $\quad 100 \div 10 =$ ☐ $\quad 10\overline{)100}$ (☐)

$3 \times 10 =$ ☐ $\quad 30 \div 10 =$ ☐ $\quad 10\overline{)30}$ (☐)

Completing Division Facts

Examples: $8 \div \boxed{2} = 4$. Think that 2 fours are 8.

$27 \div \boxed{9} = 3$. Think that 9 threes are 27.

$8 \div \boxed{8} = 1$. Think that 8 ones are 8.

$50 \div \boxed{5} = 10$. Think that 5 tens are 50.

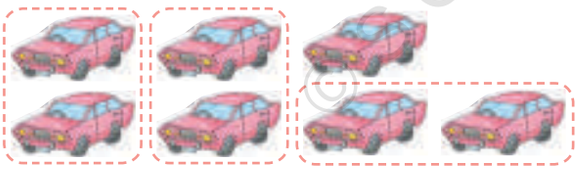
EXERCISE 7B

Complete the division facts.

1.	$14 \div 2 = \square$	**2.**	$16 \div 8 = \square$	**3.**	$21 \div 3 = \square$
4.	$45 \div 9 = \square$	**5.**	$32 \div 4 = \square$	**6.**	$35 \div 5 = \square$
7.	$40 \div 4 = \square$	**8.**	$9 \div 3 = \square$	**9.**	$24 \div 6 = \square$
10.	$63 \div 7 = \square$	**11.**	$28 \div 4 = \square$	**12.**	$80 \div 10 = \square$
13.	$45 \div 9 = \square$	**14.**	$7 \div 7 = \square$	**15.**	$24 \div 8 = \square$

DIVISION WITH REMAINDER

Look at the following.



1. There are 7 toy cars and 3 boys. Each boy gets 2 cars when divided equally. How many cars remain?

7 = 3 times 2 and 1

Each boy gets 2 cars and 1 car remains.

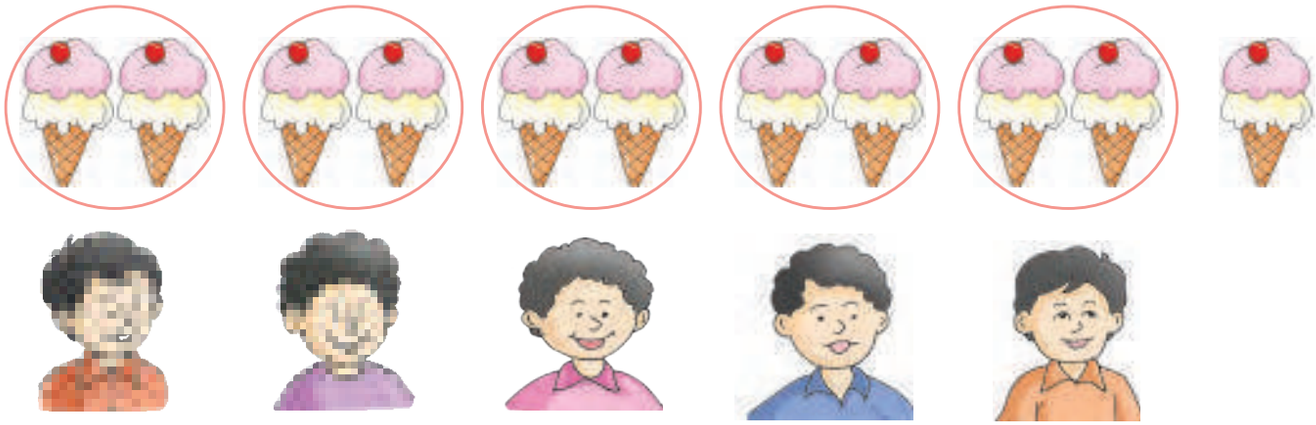
$$\begin{array}{r} 2 \\ 3\overline{)\,7} \\ -6 \\ \hline 1 \end{array}$$

2 ← Quotient

Think that 3 twos are 6.

1 ← Remainder

In the division sum shown, 3 is called the **divisor**, 2 is called the **quotient** and 1 is called the **remainder**.



2. There are 11 softy ice creams and 5 boys.

How many softy ice creams does each boy get when divided equally?

How many ice creams remain?

11 = 5 times 2 and 1

Each boy gets 2 ice creams and 1 ice cream remains.

$$\begin{array}{r} 2 \\ 5\overline{)\,11} \\ -10 \\ \hline 1 \end{array}$$

Think that 5 twos are 10.

3. The book house incharge distributes 75 books equally among 8 boys.

How many books does each boy receive? 9

How many books remain? 3

$$\begin{array}{r} 9 \\ 8\overline{)\,75} \\ -72 \\ \hline 3 \end{array}$$

Think that 8 nines are 72.

EXERCISE 7C

1. Divide and find the quotient and the remainder.

(a) $4\overline{)\,18}$ ☐

(b) $6\overline{)\,45}$ ☐

(c) $5\overline{)\,39}$ ☐

(d) $8\overline{)\,63}$ ☐

2. Find the quotient and the remainder.

(a) $3\overline{)29}$ ☐

(b) $2\overline{)17}$ ☐

(c) $9\overline{)89}$ ☐

(d) $6\overline{)56}$ ☐

(e) $7\overline{)51}$ ☐

(f) $8\overline{)61}$ ☐

(g) $4\overline{)35}$ ☐

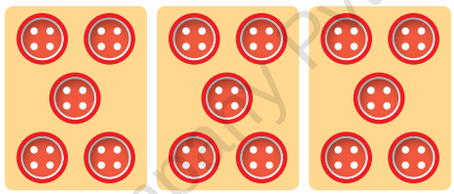
(h) $3\overline{)19}$ ☐

WORD PROBLEMS

Read the following carefully.

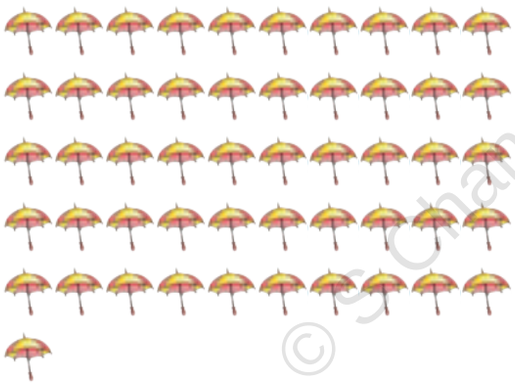
1. Mother has 15 buttons. There are 5 buttons on each card. How many cards of buttons does she have?

She has _3_ cards of buttons.



Workspace

$$5\overline{)15}\quad 3,\ -15,\ 0$$



2. Radha had 51 umbrellas. She divided them into groups of 10 each. How many groups did she have? How many umbrellas remained?

She has 5 groups and 1 umbrella remained.

Workspace

$$10\overline{)51}\quad 5,\ -50,\ 1$$

EXERCISE 7D

Solve the following problems.

Workspace

1. There are 20 children in Aruna's class. They got into groups of 5 each to play a game. How many groups were formed?

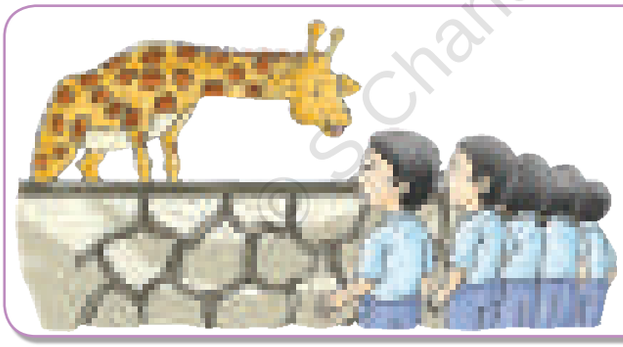
$20 \div 5 = 4$

Thus, 4 groups are formed.

2. There are 25 people going on a picnic. If 5 people ride in each car, how many cars are needed?

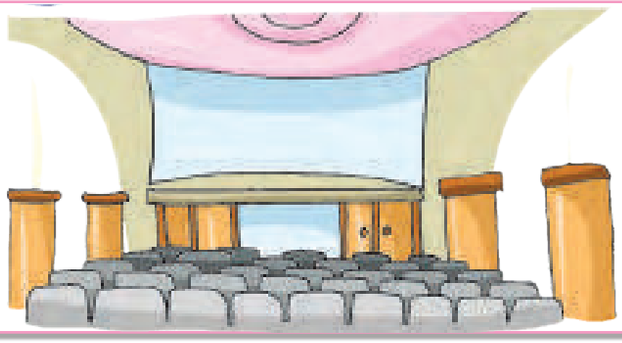
3. In a parade, there are 28 camels marching in 4 equal rows. How many camels are there in each row?

4. How many oranges do you buy for 18 rupees if each orange costs 2 rupees?



5. Arnav and his four friends visit the zoo. They pay ₹ 45 as the entry fee. How much does 1 ticket cost?

6. There are 72 seats in a movie hall. If each row has 9 seats, then how many rows of seats are there?

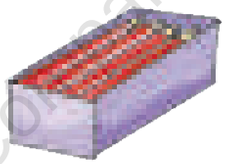


7. Ashi can make 8 necklaces in 56 minutes. If each necklace requires the same amount of time, how many minutes does it take her to make one necklace?

8. Danny's mother gave him 28 toffees but he did not eat all of them by himself. He eats 4 of them and shares the rest equally with 6 children around him. How many toffees does each child receive?

What moral value of Danny can you learn from this? **[Value Based Question]**

9. There are 34 pencils in a box. Mrs Brown distributes 8 pencils to each of her children. How many children does she have and how many pencils are left over?



10. 68 books need to be arranged equally in the 7 shelves of a bookcase. How many books will fit in each shelf and how many are left over?

Mental Maths

Solve and write the correct number in the boxes.

1. 32 ÷ 4 = ☐

2. 4 tens ÷ 8 = ☐

3. 63 ÷ ☐ = 7

4. ☐ ÷ 8 = 5

5. 5 less than 40 ÷ 8 is ☐

6. 10 more than 42 ÷ 6 is ☐

CHAPTER TEST

1. Share 30 marbles among 6 boys. Each boy gets ☐ marbles.
2. Share 56 toffees among 9 girls. Each girls gets ☐ toffees, ☐ toffees remain.
3. **Write the quotient in the boxes.**

   (a) $16 \div 2 =$ ☐ (b) $56 \div 7 =$ ☐ (c) $81 \div 9 =$ ☐

   (d) $72 \div 8 =$ ☐ (e) $48 \div 6 =$ ☐ (f) $45 \div 5 =$ ☐
4. **Work out the following problems.**

   (a) $7\overline{)65}$ (b) $9\overline{)75}$ (c) $8\overline{)59}$

   ☐ ☐ ☐
5. How many weeks are there in 35 days? ☐ weeks.

HOTS

1. **Write true or false against each number sentence.**

   (a) $81 \div 9 < 80 \div 10$ ☐ (b) $16 \div 8 < 15 \div 5$ ☐

   (c) $70 \div 7 \neq 2 \times 5$ ☐
2. What number divided by 7 gives an answer of 9?
3. Nina baked 35 cookies and ate 6 of them. She now wants to make 5 gift bags with the same number of cookies in each bag. How many cookies (if any) will be left over?

Quick Review

1. How much is 18 more than the product of 5 and 9?
2. Danny puts 63 bottles of juice in a box. There were 7 equal rows of bottles in the box. How many bottles were there in each row?
3. 200 more than 213×2 equals _____.

8 Even and Odd Numbers

PAIRS

Objects that are in twos are said to be in **pairs**.

One cup

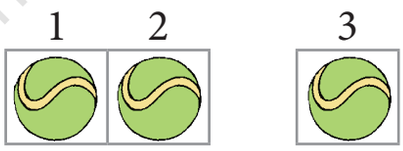
A pair of cups

pair pair

There are 2 pairs and no leftover in case of 4 objects.

The numbers that can be put in pairs are called **even numbers**.

4 can be put into pairs, so it is an even number.



pair 1 leftover

There is one pair and 1 leftover in case of 3 objects.

The numbers that cannot be put in pairs are called **odd numbers**.

3 cannot be put into pairs, so it is an odd number.

Remember

1. No remainder is left, when an even number is divided by 2. In case of odd numbers 1 is leftover when divided by 2.

2. In the number series, when taken in continuation, even and odd numbers come alternately.
3. If the last digit of any number ends in 0, 2, 4, 6, 8, then the number would always be an even number. For example, 10, 12, 34, 46, 88, etc.
4. If the last digit of any number ends in 1, 3, 5, 7, 9, then the number would always be an odd number. For example, 11, 23, 35, 47, 99, etc.

EXERCISE 8

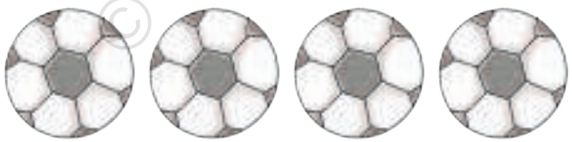
1. Count the objects in each row and write odd or even. One has been done for you.

(a)  Odd

(b) 

(c) 

(d) 

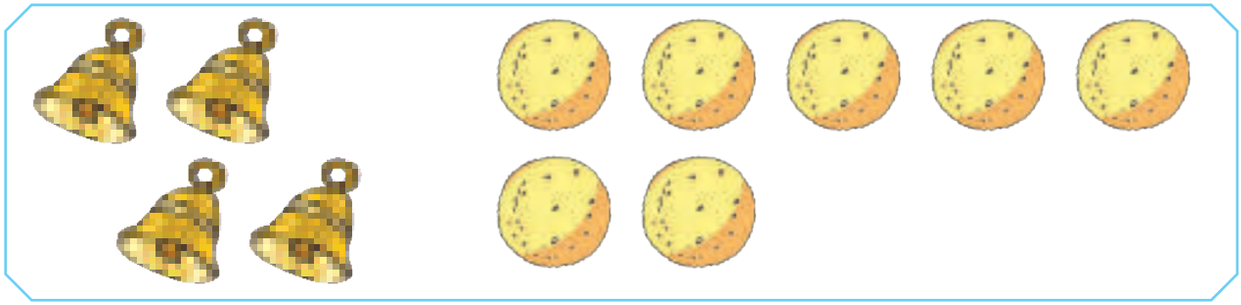
(e) 

(f) 

(g) 

2. Tick (✓) the collection with odd number of objects.

(a)



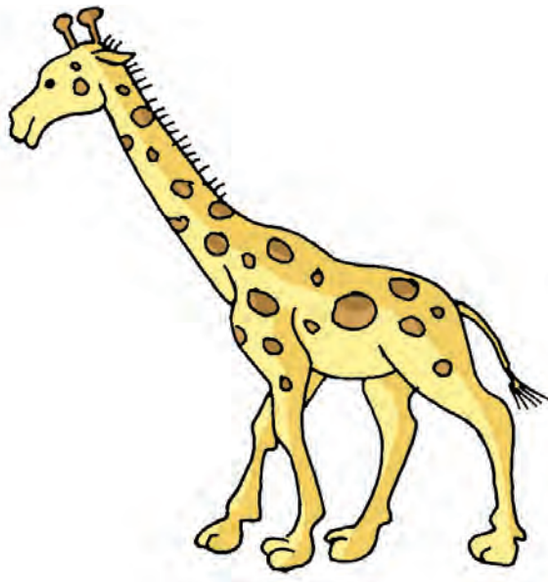
3. Circle the even numbers in the following.

5	8	15	17	20	24	29	41
16	13	9	28	50	63	72	93

Fun Activity

Fill in green colour in all odd numbers and pink colour in all even numbers.

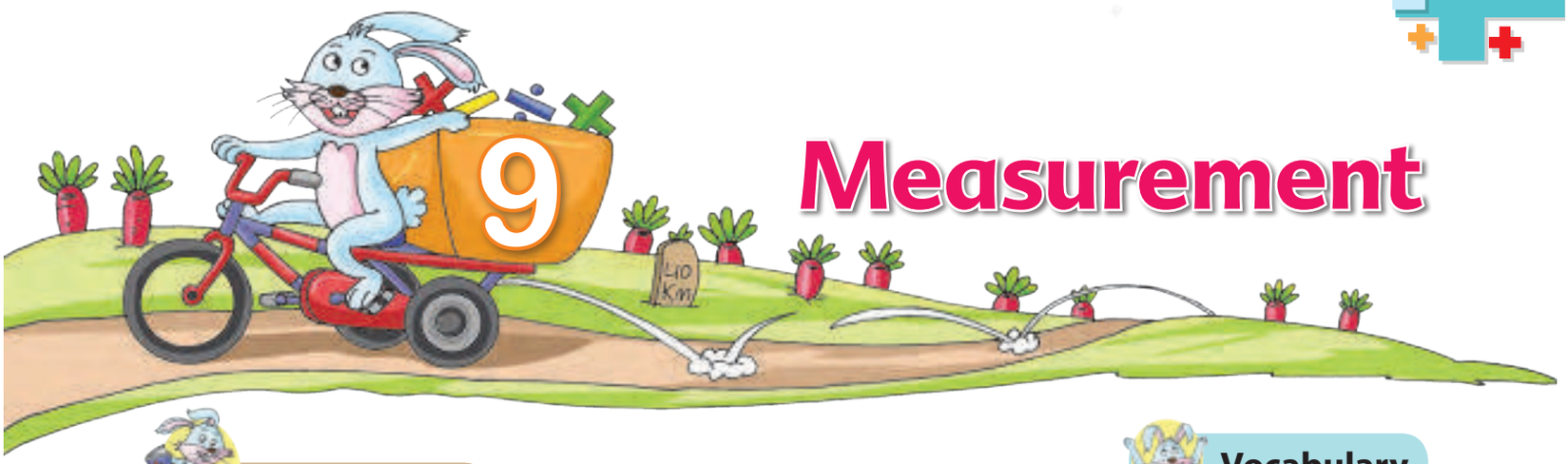
35	46	54	17	1	33	98	67	44	72
2	99	49	22	18	7	48	59	71	19
81	36	70	89	27	62	78	38	13	53
42	87	3	64	31	20	82	40	10	68
12	28	50	41	57	4	37	86	52	25
21	8	69	39	73	51	14	91	79	30
56	74	11	63	80	88	61	26	83	9
34	90	58	23	92	45	66	5	76	17
85	6	96	15	55	95	32	93	43	75
16	65	47	100	29	29	84	60	24	94



HOTS

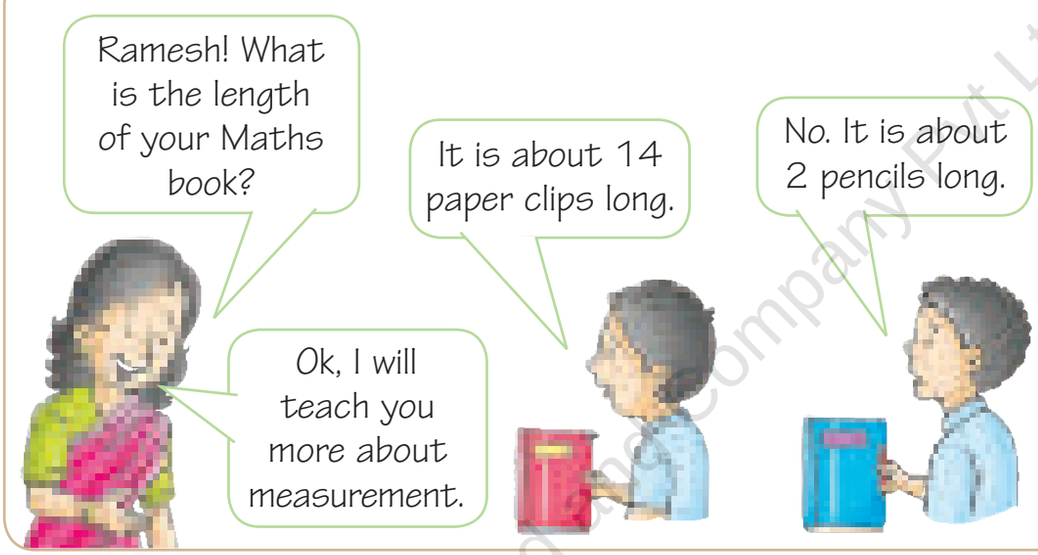
1. I am an even number between 5 times 3 and 6 times 3. Who am I? _____

2. I am an odd number between 11 and 20. I am greater than 15 but less than 19. Who am I? _____



9 Measurement

Warm Up



Vocabulary

- Length
- Weight
- Capacity
- Metre
- Gram
- Litre

LENGTH

We see that the length of objects (here book) can be measured by placing multiple copies of the same object (here paper clips or pencils) end-to-end. Two students when asked to measure the length of their Maths book used two different objects. May be if the teacher asks all the children of the class to do this activity, they may use different objects for the measurement. Hence, they shall have different answers, although the length of the book is the same for every student. Such units (objects) used for measurement are known as **non-standard units of measurement**.

Also, as seen in the example given above, it takes more smaller objects than larger objects to measure the length of a given thing. So, the unit of measurement or object used is also picked keeping in view the convenience factor.

To avoid all these differences in measurement, standard units of measurement as **centimetres** and **metres** are used.

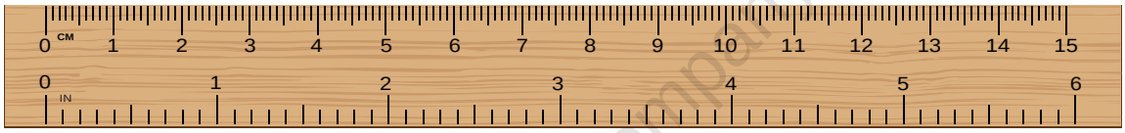
We write centimetre in short form as **cm** and metre as **m**.

The length of a staple pin and the width of the tip of the small finger of an adult is about 1 cm.

Small lengths are measured in centimetres.

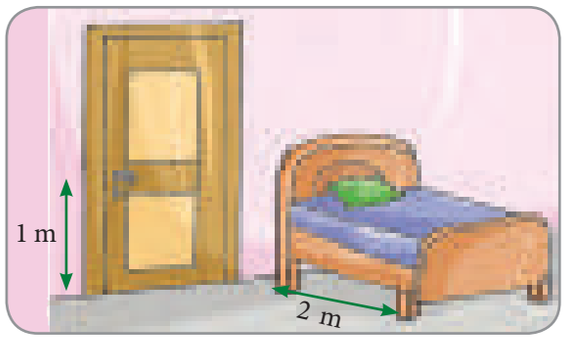
- A pencil is about 14 centimetres long.
- A normal sized paper clip is about 2 centimetres long.
- A glue stick is about 10 centimetres long.
- Your Maths book is about 30 centimetres long.

To measure smaller length, we use 15 cm or 30 cm ruler.



Bigger lengths are measured in metres.

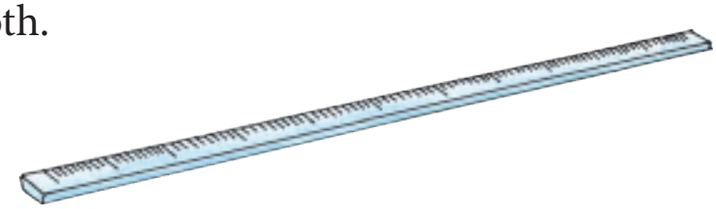
- The length of the door knob from the ground is about 1 metre.
- The length of a normal bed is about 2 metres.
- Children run a 100 metres race.
- The length and width of a basket ball court is measured in metres.



100 centimetres make 1 metre. So, 1 m = 100 cm

The following are three kinds of metre scales used.

1. It is a metre rod made of iron or wood used by cloth merchants for measuring cloth.



2. It is a metre scale used by masons or carpenters.

3. It is a metre scale used by tailors.

EXERCISE 9A

1. Tick (✓) the object that is about 1 cm long.

2. Which is longer, a centimetre or a metre? _____

3. Which standard unit of length—centimetres or metres would you use to measure the following lengths and heights?

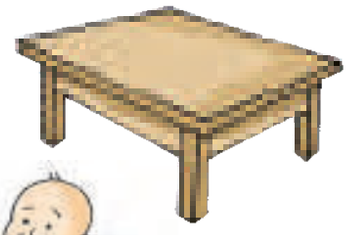
(a) The length of a table _____

(b) The width of a playing card _____

(c) The height of a newborn baby _____

(d) The height of a double decker bus _____

(e) The height of your school building _____



4. Fill in the blanks with more / less.

(a) The height of a cycle is _____ than 1 metre.

(b) The length of a 3 seater sofa is _____ than 1 metre.

(c) The length of my school playground is _____ than 1 metre.

(d) The height of my school bag is _____ than 1 metre.

(e) The height of a cat is _____ than 1 metre.

5. Write metre (m) or centimetre (cm) in the blank space.

(a) My pencil is about 10 _____ long.

(b) My height is about 90 _____.

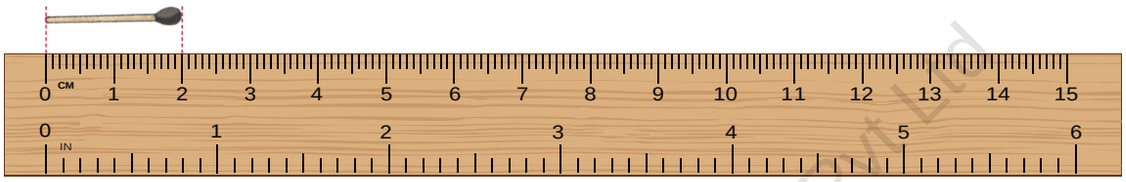
(c) Our classroom is about 5 _____ long.

(d) This plant is about 1 _____ high.

(e) The safety pin is about 3 _____ long.

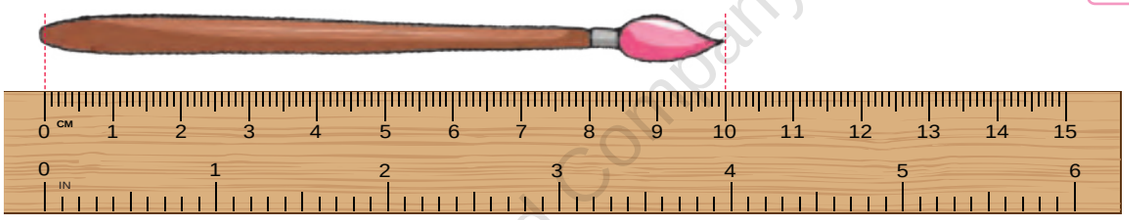
6. Write the length of each.

(a)



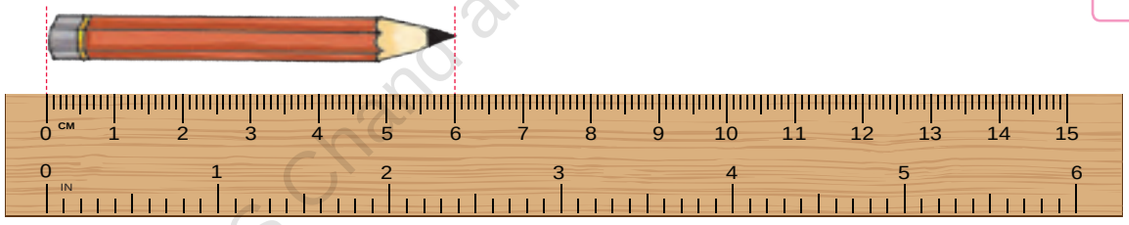
cm

(b)



cm

(c)



cm

7. Using a ruler, measure the lengths of the following lines.

(a) A ——— B

AB is 4 centimetres long.

4 cm

(b) G ——— H

GH is _____ centimetres long.

cm

(c) P ——— Q

PQ is _____ centimetres long.

cm

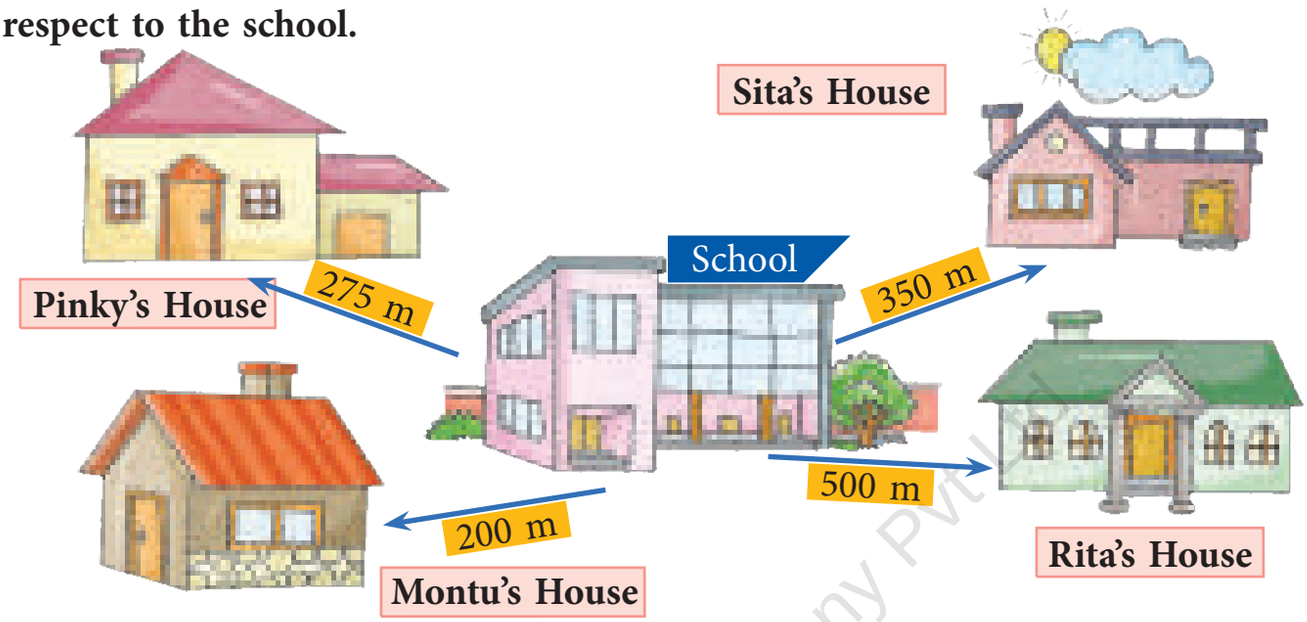
(d) K ——— L

KL is _____ centimetres long.

cm

PROBLEM SOLVING

The following diagram shows the location of the houses of four children with respect to the school.



(a) How far is the school from Sita's house?

(b) Pinky came to the school from home and then walked back home. How far did she walk?

(c) How far is Rita's home from Pinky's home?

(d) Rita first walks to the school and then walks to Sita's house. How far does Rita walk?

(e) How many metres more is the school from Pinky's house than from Montu's house?

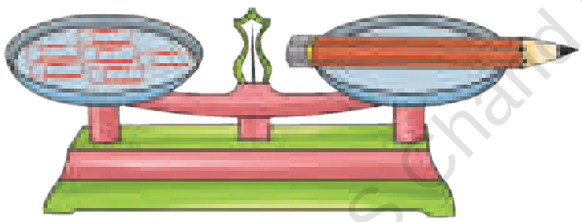
Activity

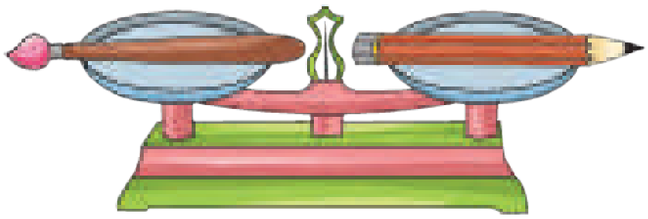
Measure the following objects around you and complete the table.

Object	Choose the unit	Measure
Width of your maths book	Centimetre Metre	About _____
Car	Centimetre Metre	About _____
Calculator	Centimetre Metre	About _____

WEIGHT

As discussed in the beginning of the chapter, we know that earlier non-standard units were used to measure lengths. Similarly, a balance can be used to measure the weights of objects using non-standard units as paper clips, crayons, marbles etc.





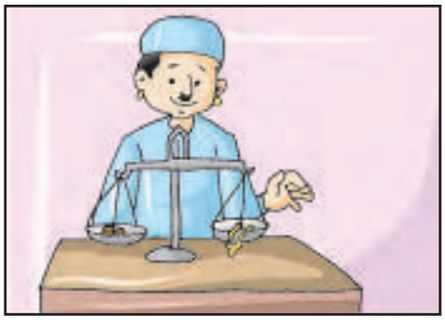
As we can see, 6 paper clips balance with 1 pencil so the weight of 1 pencil = weight of about 6 paper clips. Now, here the same pencil balances with 1 paint brush, so say 1 pencil weighs about 1 paint brush. Similarly, 1 pencil if tried again may weigh about 3 marbles. So, again to avoid this difference in answers with non-standard units of weight, we move on to the study of standard units of weight.

Measuring Weight

The standard unit of weight is **gram**.

Kilogram is a bigger unit of weight.

The vegetable seller is weighing potatoes in **kilograms**.



The goldsmith is weighing a ring in **grams**.

The farmer is weighing wheat bags in **quintals**.

We write gram as **g** and kilogram as **kg** in short form.

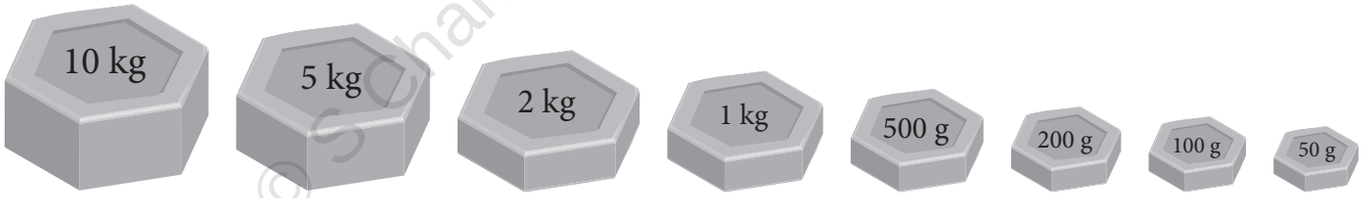
1 kilogram is equal to 1000 grams. In short, 1 kg = 1000 g

Weight of a feather is about 1 gram.

Weight of an apple is about 40 grams.

Weight of a new born baby is about 3 kg.

The following pictures show some of the standard weights.



EXERCISE 9B

1. Write the unit of weight in which you will measure the following.

(a) Eraser ☐ (b) Biscuit packet ☐ (c) Four toffees ☐

(d) Your weight ☐ (e) Soap-bar ☐ (f) Gold ring ☐

(g) Bag of rice ☐ (h) Your suitcase and bedding ☐

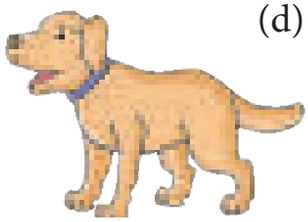
2. Circle the weight that seems to be correct.

(a) 

50 g / 500 g

(b) 

10 kg / 100 kg

(c) 

15 kg / 150 kg

(d) 

3 kg / 30 kg

3. Solve the following.

(a) Sumit weighs 45 kg and Anil weighs 56 kg. What is their total weight?

☐ kg.

(b)

The weight of a chair is 10 kg. A table is 25 kilograms heavier than the chair. What is the weight of the table?

☐ kg.

(c) A bag of onions weighs 520 grams. A bag of potatoes weighs 810 grams. How much lighter is the bag of onions than the bag of potatoes?

☐ grams.

(d)

A man weighs 72 kg and his wife weighs 59 kg. How much does the man weigh more than his wife?

☐ kilograms.

(e) Sanya has 645 grams of cherries. She eats 130 grams of cherries and gives 350 grams of cherries to her sister Tanya. What is the weight of cherries left with Sanya?

☐ grams.

1 3 0 g	6 4 5 g
+ 3 5 0 g	– ☐ g

CAPACITY

Measuring Capacity

The milkman measures milk in litres. Petrol and kerosene oil are also sold in litres.

The unit for measuring liquids is litre. The short way of writing litre is **L**.

Small quantities of a liquid such as medicine are measured in **millilitres**.

The short way of writing millilitre is **mL**.

1000 millilitres make 1 litre. In short, 1 L = 1000 mL

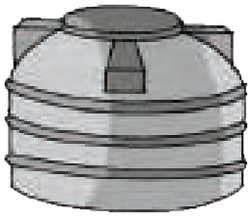
The milkman uses the following types of standard vessels to measure the quantity of milk.

EXERCISE 9C

1. Tick (✓) the unit you will use to measure the capacity of each of the following.

L mL

L mL



L mL

L mL

2. Circle the unit which you will use to measure each of the following.

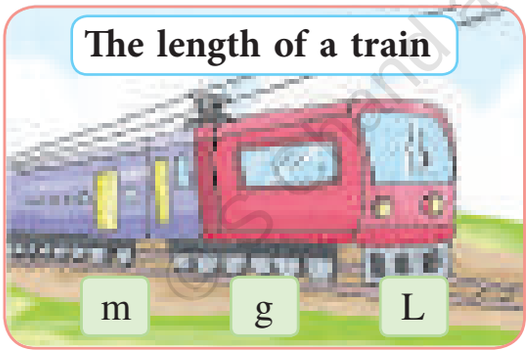
(a) **The weight of a banana**

g cm mL

(b) **The amount of water in a doctor's syringe**

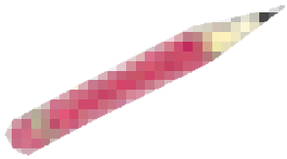
cm mL g

(c) **The length of a train**



m g L

(d) **The length of a pencil**



L kg cm

(e) **The weight of a bed**

L kg m

(f) **The amount of water in the water tank**

L kg m

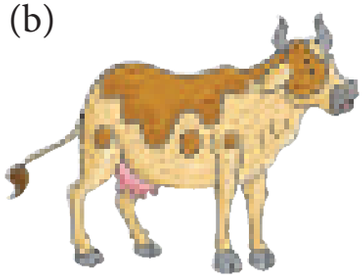
3. Solve the following.

(a) A bucket contains 15 L of water and another bucket contains 12 L. Find the total amount of water in the two buckets.

☐ L.

```
  15 L
+ 12 L
------
     L
------
```

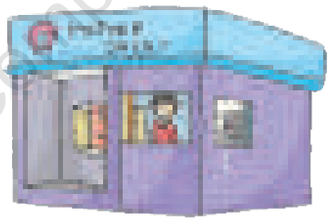
(b)



A cow gives 8 litres of milk every day. How much milk will she give in a week?

☐ L.

(c) A milk dairy sells 145 litres of milk everyday. How much milk will it sell in 4 days?



☐ L

(d)

Mandira fills an empty container with 20 litres of water. She then pours all the water equally into some jugs. Each jug holds 4 litres of water. How many jugs does she use?

☐ jugs

(e) A bottle contained 400 mL of oil. The bottle fell and 75 mL of oil spilled on the floor. How much oil was left in the bottle?

☐ mL

CHAPTER TEST

1. Match correctly the items in column A to their description in column B.

(a) weight	(i) small unit of capacity
(b) capacity	(ii) the measure of how heavy an object is
(c) metre	(iii) unit of capacity = 1000 millilitres
(d) litre	(iv) unit of length = 100 centimetres
(e) kilogram	(v) the amount that a container can hold
(f) millilitre	(vi) unit of weight = 1000 grams

2. What unit will you use to measure the following? Put a tick (✓) on the correct answer.

(a) an apple	g or kg
(b) a small bottle of hair oil	L or mL
(c) a water storage tank	mL or L
(d) the strolley full of clothes	g or kg
(e) the length of your mom's saree	cm or m

Tick (✓) the correct answer.

3. Bobby jogs two times around a 325 m long track. How far does he jog in metres?

(a) 350 m ☐ (b) 650 m ☐ (c) 550 m ☐ (d) 660 m ☐

4. Which one of the following is the heaviest?

(a) 1 kg ☐ (b) 800 g ☐ (c) 900 g ☐ (d) 990 g ☐

5. In 1 L, there are _____ mL.

(a) 1 ☐ (b) 10 ☐ (c) 100 ☐ (d) 1000 ☐

6. A bottle of coke is about

(a) 50 mL ☐ (b) 120 mL ☐ (c) 800 mL ☐ (d) 300 mL ☐

7. Kirti buys 325 mL of mango juice and 450 mL of grape juice. She mixes them to make a fruit punch. She drinks 415 mL of the punch. How many millilitres is left?

(a) 135 mL ☐ (b) 360 mL ☐ (c) 250 mL ☐ (d) 460 mL ☐

10 Money

Warm Up

We use money to pay for things that we buy.

Money is in the form of coins and currency notes. In India, money is in the form of **rupees** and **paise**.

We use the symbols ₹ and p to represent rupee or rupees and paise respectively.

Identify our coins and currency notes and write their values in the blanks.

1 rupee coin

______ rupee coin

______ rupee coin

______ rupee coin

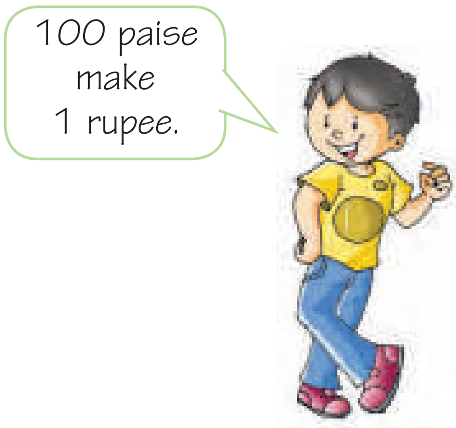
______ rupee note

______ rupee note

______ rupee note

______ rupee note

______ rupee note



______ rupee note

______ rupee note

EXERCISE 10A

1. Count and write the money in each box.

(a)

rupees

(b)

rupees

(c)

rupees

(d)

rupees

(e)

rupees

(f)

rupees

2. Tick (✓) the notes and coins needed to make the given amount.

(a) ₹ 16

₹ 68

(c) ₹ 122

(d) ₹ 585

EXCHANGING MONEY

10 rupees can be got by combining different coins as:

Class Work

How can a 20-rupee note be exchanged for 2-rupee coins, 5-rupee coins and 10-rupee coins respectively? Also find one exchange for 20-rupees where all these coins are there together.

 =

 =

 =

 =

Worksheet

1. Draw lines to match the correct amount on the left to the toys on the right costing the same amount.

₹ 125

₹ 75

₹ 35

₹ 900

2. Find the change.

Bought	Paid	Returned	Workspace
A book for ₹ 13 and a ball pen for ₹ 5		One 2-rupee coin or Two 1-rupee coins.	20 −18 2
Toffees for ₹ 3 and fruits for ₹ 10		____ 5-rupee note or coin and ____ 1-rupee coins.	____ ____
Ice cream for ₹ 10 and colour-box for ₹ 30		____ 10-rupee note or ____ 5-rupee coins.	____ ____
A book for ₹ 60 and a greeting card for ₹ 20		____ 20-rupee notes or ____ 10 rupee notes.	____ ____

RUPEES AND PAISE

100 paise is equal to 1 rupee. Previously, coins of smaller values (as shown below) representing paise were also used. Now, they have been discontinued by the government.

1 paisa 2 paise 5 paise 20 paise 25 paise 50 paise

Note: 50 p coins are still used sometimes.

Writing money involving both rupees and paise in words and figures

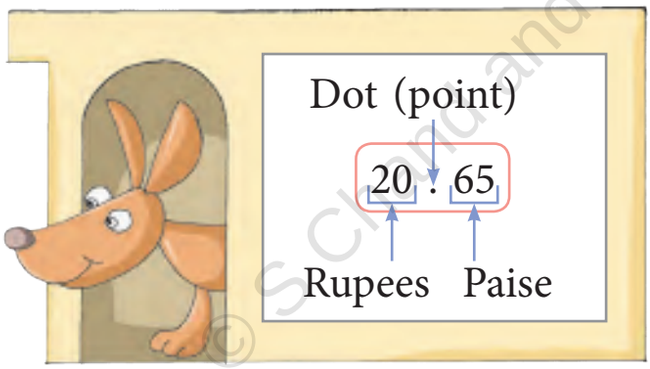
Ten rupees in numerals is ₹ 10.

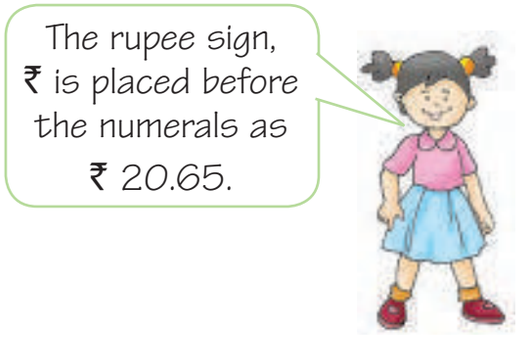
Fifty paise in numerals is 50 p.

One hundred five rupees is ₹ 105.

Nine paise is 9 p.

"Twenty rupees sixty-five paise" in numerals is written as ₹ 20.65 where the numeral indicating rupees is separated from the numeral indicating paisa by a point (dot).





Examples: (a) **Seventeen rupees and fifty paise** is written as ₹ 17.50.

(b) **Twenty-two rupees and eight paise** is written as ₹ 22.08.

A single digit paisa is converted to a double digit numeral by adding a zero before it.

(c) **Forty-five rupees** is written as ₹ 45.00 (note the 2 zeros after the point).

(d) **65 paise** is written as ₹ 0.65 (note the zero before the point).

EXERCISE 10B

1. Write in figures.

(a) Nine rupees and forty-five paise = _____

(b) Twenty-nine rupees and nine paise = _____

(c) One hundred forty-three rupees and fifty paise = _____

(d) Fifty-six rupees = _____

(e) Ninety rupees and twenty-five paise = _____

2. Write in words.

(a) ₹ 6.50 = _____

(b) ₹ 15.90 = _____

(c) ₹ 55.07 = _____

(d) ₹ 175.35 = _____

ADDITION AND SUBTRACTION OF MONEY

Addition and subtraction of money expressed both in rupees and paise is carried out as follows:

1. Rupees and paise are arranged into different columns exactly one below the other.
   In case of subtraction, the greater amount is placed above the smaller amount.
2. Then the numbers are added or subtracted as ordinary numbers.
3. Finally, a point is placed between the value of rupees and paise in the answer.

Example 1: **Add ₹ 16.35 and ₹ 45.50.**

Solution:

	₹	P
	16	35
+	45	50
	61	85

Answer: ₹ 61.85

Example 2: **Subtract ₹ 25.30 from ₹ 78.85.**

Solution:

	₹	P
	78	85
−	25	30
	53	55

Answer: ₹ 53.55

Example 3: **Rita bought groceries for ₹ 145.25 and medicines for ₹ 326.45 from the market. How much did she spend in all?**

Solution: Rita spent = ₹ 145.25 + ₹ 326.45.
= ₹ 471.70 in all.

	₹	P
	(1)	(1)
	145	25
(+)	326	45
	471	70

Example 4: **Manoj went to the school canteen with ₹ 45.55. He ate a sandwich for ₹ 21.30. How much money is he left with?**

Solution: Manoj is left with ₹ 45.55 – ₹ 21.30
= ₹ 24.25

	₹	P
	45	55
(–)	21	30
	24	25

EXERCISE 10C

1. Add the following amounts.

(a)

	₹	P
	62	50
(+)	35	25

(b)

	₹	P
	◯	
	245	35
(+)	83	40

(c)

	₹	P
	◯	
	135	25
(+)	472	45

2. Subtract the following amounts.

(a)

	₹	P
	28	58
(–)	15	25

(b)

	₹	P
	95	75
(–)	59	50

(c)

	₹	P
	275	65
(–)	143	40

3. Solve the following.

(a) Gita's mother gave her ₹ 40 to buy some fruits. She went to the market and lost ₹ 15 on her way. How much money is left with her?

_____

(b) Ashu bought an ice cream for ₹ 28 and a burger for ₹ 45 for lunch. How much money did he spend in all?

_____

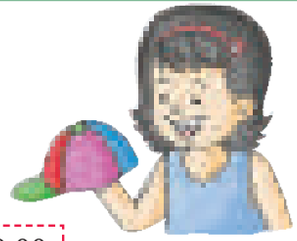
(c) Mohit took his mobile phone for repair. The repair cost him ₹ 254. He gave the shopkeeper ₹ 300. How much did the shopkeeper give him back?

_____

(d) John had his practical exam. He paid ₹ 75.25 as exam fee. Suddenly he noticed that his friend was crying as he did not have money for exam fee. John paid the same amount as the friend's exam fee also. How much did John pay as exam fee in all? What moral value of John is highlighted in the question? **[Value Based Question]**

_____

(e) Amita bought a cap and a hairband for ₹ 100. If the cost of the hairband is ₹ 12.50, find the cost of the cap.



_____ **Note:** ₹ 100 = ₹ 100.00

CHAPTER TEST

1. Write in figures.

(a) Fifty-eight rupees and ninety-five paise = _____

(b) Two hundred forty rupees and eight paise = _____

2. Every year Arpit celebrates his birthday in an orphanage. This year also, he bought chocolates for ₹ 440 and gave the shopkeeper a 500-rupee note. The shopkeeper has either 20-rupee notes or 50-rupee and 10-rupee notes. How many 20-rupee or 50-rupee and 10-rupee notes should he give back to Arpit?

Workspace

3. I have a 50-rupee note. Is it sufficient to buy eight 6-rupee erasers?

4. The cost of a pair of shoes is ₹ 435.99. Priya has only ₹ 224.50. How much more money does she need to buy the shoes?

Tick (✓) the correct answer.

5. Sandy went to a bookshop and bought two books, one for ₹ 56.25 and the other for ₹ 118.30. How much money did she pay to the shopkeeper?

(a) ₹ 164.55 ☐ (b) ₹ 174.65 ☐ (c) ₹ 174.55 ☐ (d) ₹ 164.05 ☐

6. 1 kg of sweets costs ₹ 260. What is the cost of 2 kg of sweets?

(a) ₹ 320 ☐ (b) ₹ 520 ☐ (c) ₹ 640 ☐ (d) ₹ 700 ☐

HOTS

A sale sign in a shop reads "₹ 15 off on any item over ₹ 50."

Some of the items displayed are:

Sam buys a ball, a bag and a hat. How much does he need to pay?

(a) ₹180 ☐ (b) ₹165 ☐ (c) ₹195 ☐ (d) ₹150 ☐

11 Time and Calendar

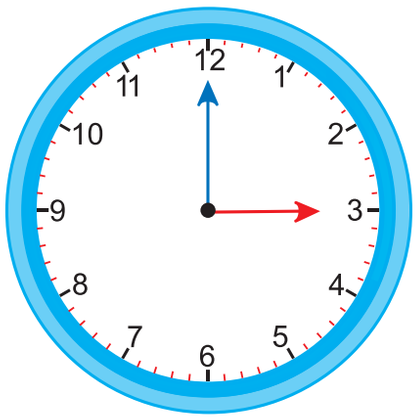
Warm Up

TELLING TIME

Look at the clock shown below.

It has two hands. One of them is the long hand. The other is the short hand. The short hand shows the hours and is called the **hour hand**.

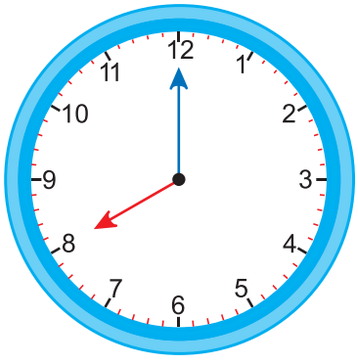
The long hand shows the minutes and is called the **minute hand**. The face of the clock is called the dial. The dial of the clock is divided into 12 equal parts.



In this clock, the short hand is at 3 and the long hand is at 12.

The time is **3 o'clock**. In short, it is written as **3 : 00**.

At the hour, the longer hand points to 12. The time is indicated by the number to which the short hand points.



In the clock shown here, the long hand is at 12 and the short hand is at 8.

What is the time?

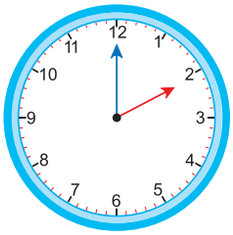
The time is ☐ o' clock or ☐.

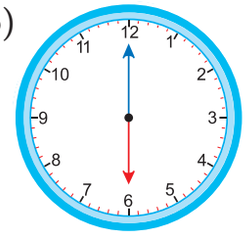
Vocabulary

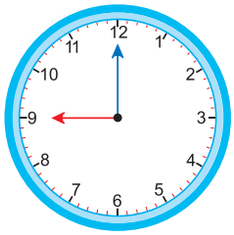
- Hour
- Minute
- Day
- Yesterday
- Today
- Tomorrow
- Month
- Year
- Leap Year
- Seasons

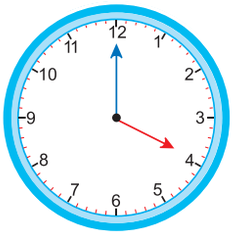
EXERCISE 11A

1. Write the time shown on the face of the clocks.

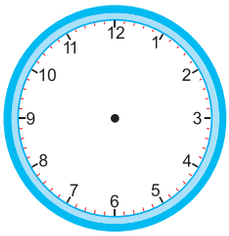
(a) 

(b) 

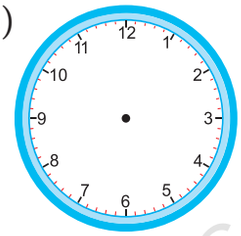
(c) 

(d) 

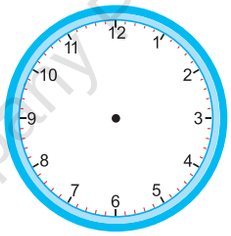
2. Draw the hands to show the given time below each clock.

(a) 

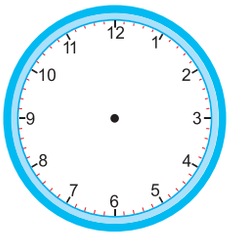
5 : 00

(b) 

8 o' clock

(c) 

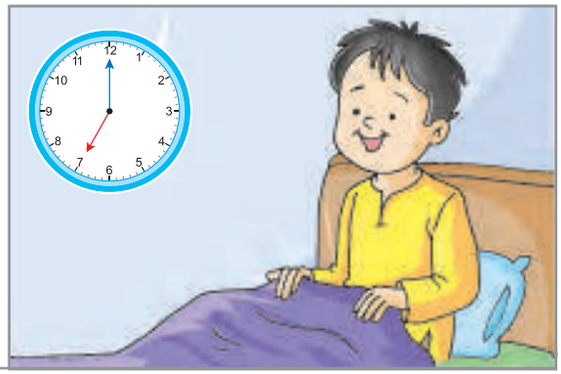
2 : 00

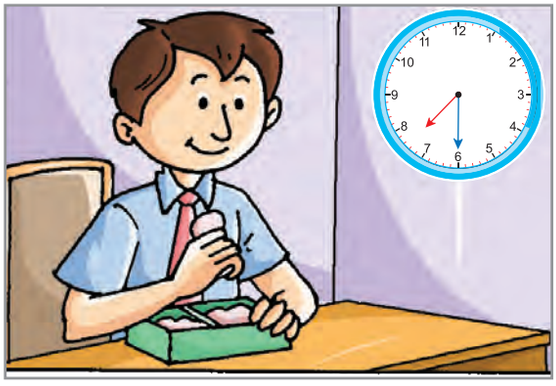
(d) 

3 o' clock

TELLING TIME TO THE HALF HOUR

Rohan woke up at 7 o 'clock in the morning to go to school.



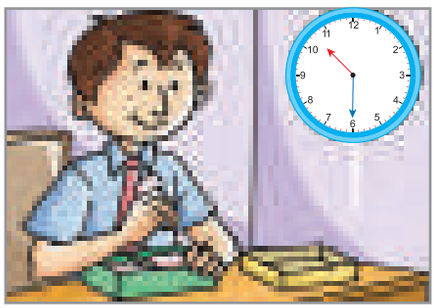


He had breakfast at half past 7.

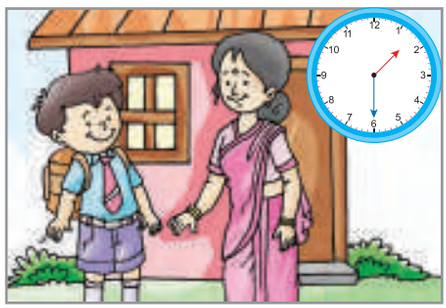
What does **half past** mean?

As you can see, the minute hand has moved from 12 to 6 in the second clock and also the hour hand is between 7 and 8.

So, **half past the hour** means the minute hand is halfway round the clock and the hour hand is also halfway between the two numbers for the hours.



The recess break in the school is at **half past 10**.



Rohan comes back from school at **half past 1**.

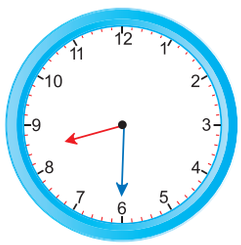
Rohan goes to play at **half past 4**.

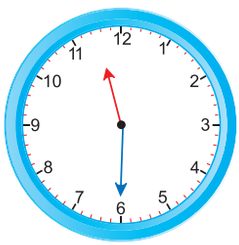
Note in all the above cases the minute hand is at 6 and the hour hand is between the numbers showing the hour and the next number.

Class Work

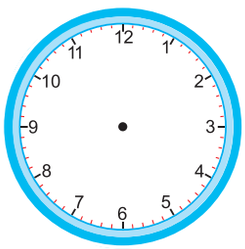
1. Write the time.

(a) 

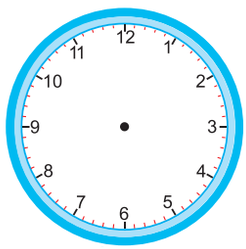
(b) 

(c) 

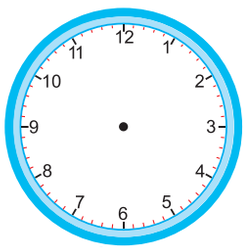
2. Draw the minute and hour hands of the clocks to show the given time.

(a) 

Half past 9

(b) 

Half past 12

(c) 

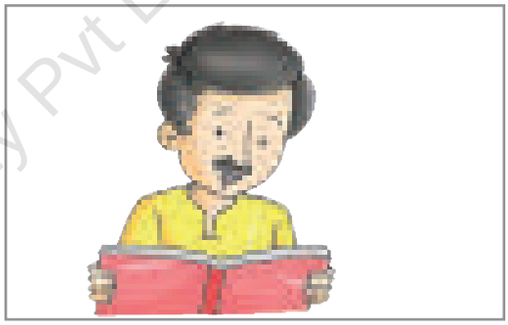
Half past 5

EXERCISE 11B

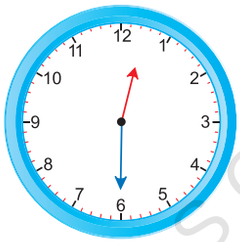
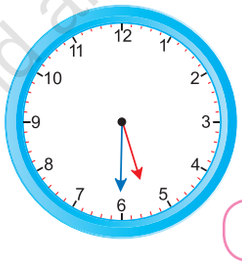
1. Tick (✓) the more suitable time for the given activity.

(a) Mother makes breakfast at


(b) Daddy reads a book at night before going to bed at

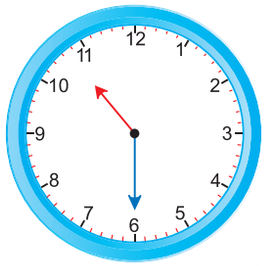
(c) Mohan goes for a football practice in the evening at

2. Sanjay enjoys his Sunday as given below. Write the time for each activity.

(a)

Sanjay gets up in the morning at _____ .



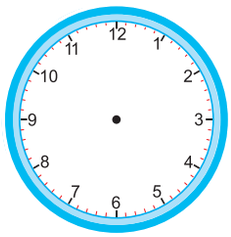
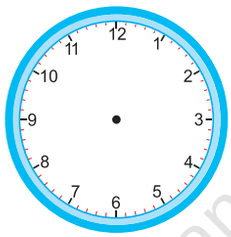
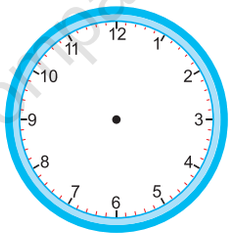
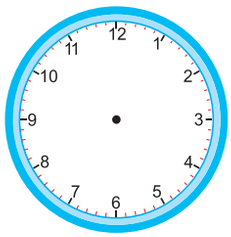
(b) He enjoys a swim at _____ .

(c) 

He watches his favourite TV show at _____ .

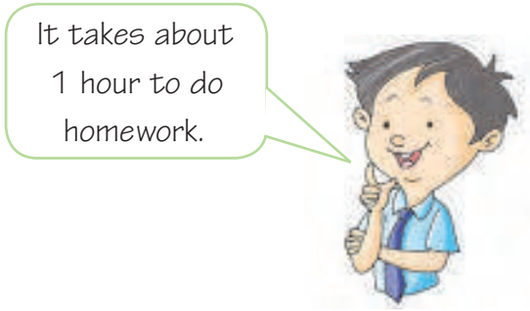
(d) He reads his favourite book at _____ .

3. Four children go to bed at different times at night. Show the times given below each clock by drawing the hands on the clocks.

Anvi	Ritu	James	Pawan
			
Half past 8	9 o'clock	Half past 9	10 o'clock

EXPLORE THE MINUTES AND HOURS

There are 30 minutes in half an hour and 60 minutes in 1 hour.



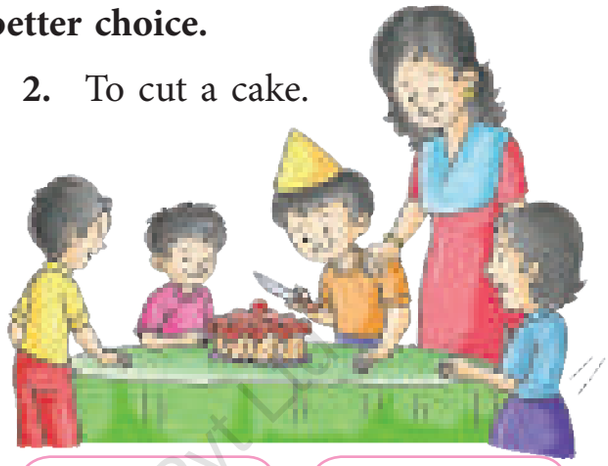
Worksheet

About how long will it take? Tick (✓) the better choice.

1. To bake a cake.

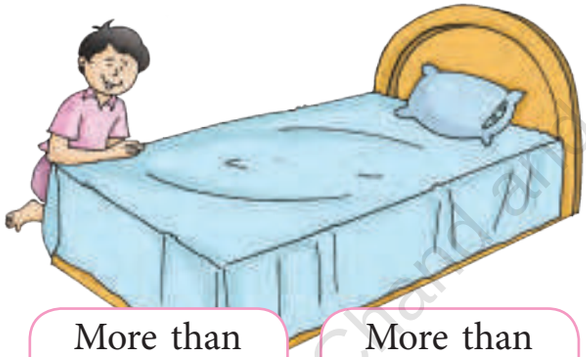
More than 1 hour	Less than 1 hour

2. To cut a cake.



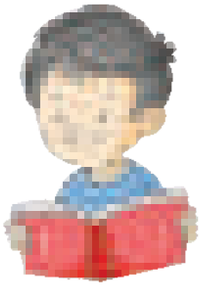
About 1 minute	About half an hour

3. To make your bed.



More than 1 minute	More than 1 hour

4. To read 1 chapter of a book.



More than 1 minute	Less than 1 minute

5. To draw a rectangle.

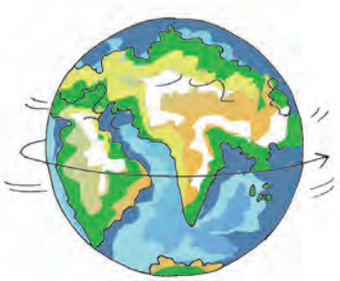
More than 1 minute	Less than 1 minute

6. To watch a cartoon movie on TV.

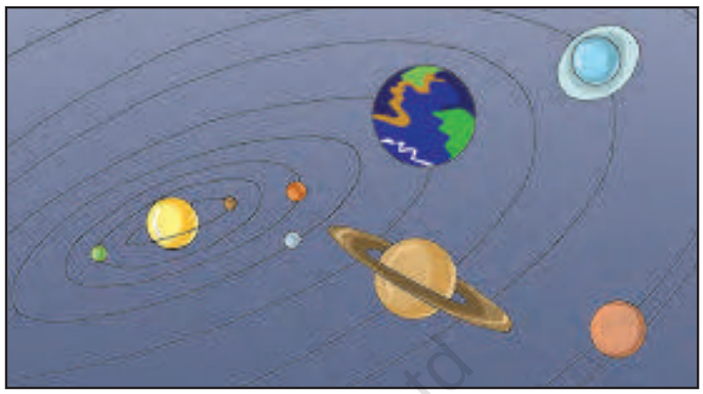
More than 1 hour	Less than 1 hour

DAYS OF THE WEEK

A day is the time that the earth takes to make 1 complete rotation on its axis.



It takes 1 day for the earth to rotate once on its axis.



It takes 1 year for the earth to move around the sun.

There are 7 days in a week.

The first day of the week is **Monday**. The last day of the week is **Sunday**. Starting from Monday the days of the week in order are as follows:

Name of the Day	Short from
Monday	Mon.
Tuesday	Tues.
Wednesday	Wed.
Thursday	Thrs.
Friday	Fri.
Saturday	Sat.
Sunday	Sun.

Teacher's Tip

The ISO 8601 Standard (an Internationally accepted way to represent dates and times) places Monday as the first day of the week and Sunday as the last day of week.

EXERCISE 11C

1. Answer the following questions.

(a) How many days are there in a week? _____

(b) Name the first day of a week. _____

(c) Name the fourth day of a week. _____

(d) Name the third day of a week. _____

(e) Name the last day of a week. _____

2. Fill in the blanks.

(a) Sunday comes before Monday.

(b) Sunday comes after _____.

(c) _____ comes before Friday.

(d) Tuesday comes after _____ .

(e) _____ comes before Wednesday.

(f) Monday comes after _____ .

(g) _____ comes before Sunday.

(h) Friday comes after _____ .

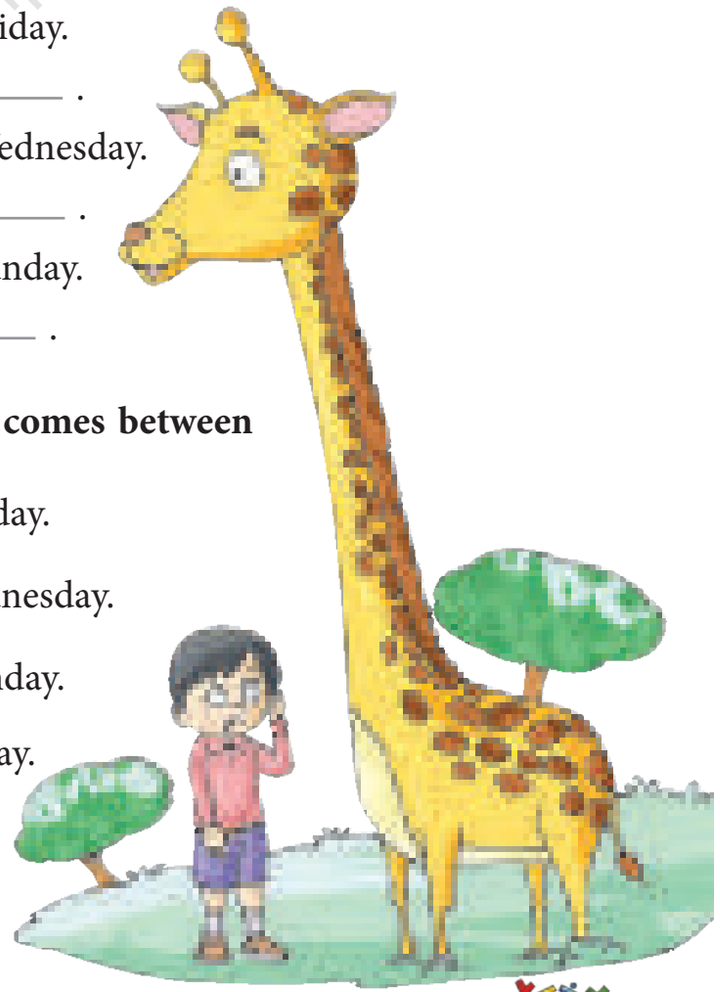
3. Write the name of the day (or days) that comes between

(a) Friday Saturday Sunday.

(b) Monday _____ Wednesday.

(c) Saturday _____ Monday.

(d) Wednesday _____ Friday.



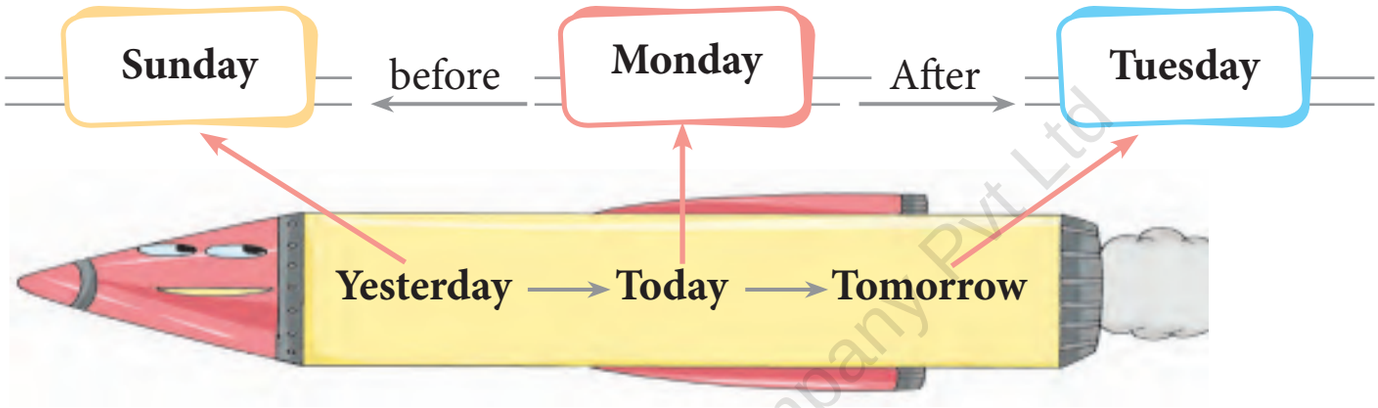
TODAY, YESTERDAY, TOMORROW

Today is the **present day,** the day which is going on.

Yesterday was the **day before today**, the day that has passed.

Tomorrow is the **day after today**, the day that is going to come.

If today is Monday, yesterday was the day before Monday, that is, Sunday. Tomorrow will be the day after today, that is Tuesday.



EXERCISE 11D

Fill in the blanks.

1. If today is Sunday, yesterday was _____
2. If today is Wednesday, tomorrow will be _____
3. If yesterday was Wednesday, today is _____
4. If tomorrow is Friday, today is _____
5. If yesterday was Friday, today is _____
6. If tomorrow is Wednesday, today is _____

MONTHS OF THE YEAR

There are 12 months in a year. They are – January, February, March, April, May, June, July, August, September, October, November, December.

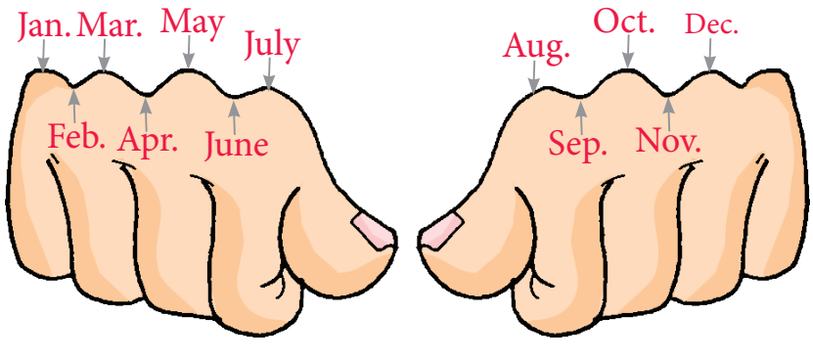
The number of days in the months are as follows:

Number	Month of the year	Short form	Number of days
1st	January	Jan.	31
2nd	February	Feb.	28 or 29
3rd	March	Mar.	31
4th	April	Apr.	30
5th	May	May	31
6th	June	June	30
7th	July	July	31
8th	August	Aug.	31
9th	September	Sept.	30
10th	October	Oct.	31
11th	November	Nov.	30
12th	December	Dec.	31

Remembering the number of days in a month of the year

There is an easy way to remember the number of days in a month of a year.

Fold your fingers into a fist as shown. Count the months of the year starting from the first knuckle, that is January on the knuckle, February in the dip, March again on the knuckle and so on.



All the months on the knuckle have 31 days. The months in the dip have 30 days. February is the only exception with 28 or 29 days.

Learn the Rhyme

Thirty days have September, April,
June and November,
All the rest have thirty-one,
Excepting February alone.
That has 28 days dear,
And 29 days in a leap year.

EXERCISE 11E

Fill in the blanks.

1. There are _____ months in a year.
2. _____ is the second month of the year.
3. April is the _____ month of the year.
4. _____ is the seventh month of the year.
5. _____ is the month between April and June.
6. The month just before December is _____ .
7. The month just after July is _____ .
8. _____ is the month just after September.
9. _____ is the month just before February.

10. July is the month between _____ and _____ .
11. April, _____ , _____ and November have _____ days.
12. _____ months in a year have 31 days.
13. Names of two months beginning with J having 31 days are _____ and _____ .
14. The first and the last months of the year have _____ days.
15. _____ is the month with the least number of days that is _____ .

To find the number of days in a year

There are 7 months having 31 days, 4 months having 30 days and 1 month having 28 or 29 days in a year. Thus, a year has

$$[(7 \times 31) + (4 \times 30) + (1 \times 28)] \text{ days}$$
$$= (217 + 120 + 28) \text{ days} = 365 \text{ days}$$

One year in every four years has an extra day, that is that year has 366 days. A year with 366 days is called a **leap year**. The extra day is added to February which then has 29 days. Here are some leap years:

1968, 1972, 1976, 1980, 1984, 1988, 1992, 1996, 2000

What leap year comes next after 2000? How did you find it?

$$\begin{array}{r} 52 \\ 7\overline{)365} \\ -35 \\ \hline 15 \\ -14 \\ \hline 1 \end{array}$$

To find number of weeks in a year

We know that a week has 7 days.
To find the number of weeks in a year, we divide 365 by 7.
$365 \div 7 = 52$ weeks and 1 day.

CALENDAR

A calendar is a record of all the days in a year. It orders time into days, weeks and months.

Calendar 2016

JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

By studying the calendar, we learn that

7 days	=	1 week
About 52 weeks	=	1 year
12 months	=	1 year
365 days	=	1 year
366 days	=	1 leap year
About 4 weeks	=	1 month

WRITING DATES

A calendar can be used to write a date.

Look at the calendar for the month of October 2015.

October 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

The month begins on a Thursday. The date is October 1, 2015. In short, we write 1.10.2015.

The month ends on a Saturday. The date is October 31, 2015. In short, we write 31.10.2015.

The date on the second Tuesday of the month is October 13, 2015. In short, we write 13.10.2015.

Class Work

Use the calendar for the month of October 2015 given on page 168 to fill in the blanks.

1. The third day of the month falls on a _____ .
2. There are _____ Fridays in the month of October.
3. The date of the first Monday of the month is _____ .
4. If today is the last Thursday of the month, the date is _____ .
5. The twenty-fifth day of the month is a _____ .
6. If all Saturdays and Sundays are holidays, then the number of holidays in the month of October are _____ .

SEASONS

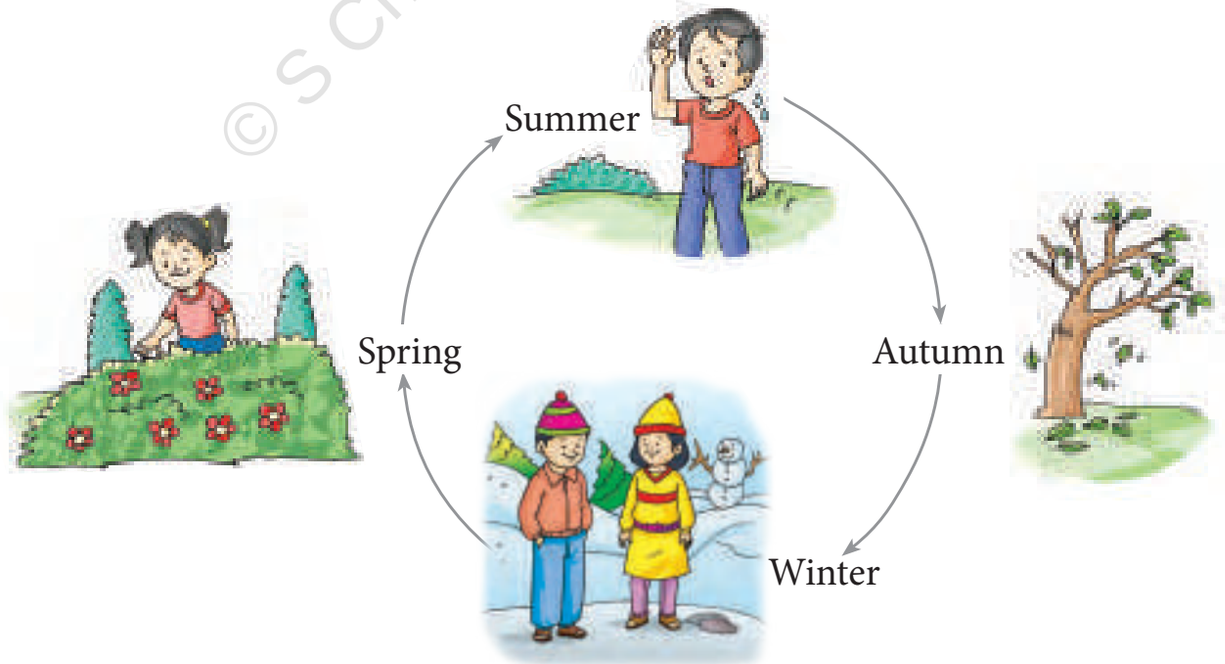
Worldwide, the year is divided into **four** seasons.

Winter : It is very cold and also snows in some areas.

Spring : This season comes after winter. New leaves grow and flowers are in full bloom.

Summer : It is very hot.

Autumn : This season comes before winter. The trees shed their leaves and the weather is pleasant.



In India, there are six seasons or **ritus**.

1. **Shishir** → January, February

Very cold

2. **Vasanta** → March, April

New leaves grow, flowers bloom

3. **Grishma** → May, June

Very hot

4. **Varsha** → July, August

Rainy season

5. **Sharad** → September, October

Leaves fall

6. **Hemanta** → November, December

Light cold

EXERCISE 11F

Answer the following questions. You can use the help box.

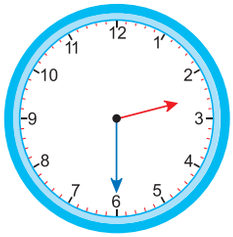
Help Box:
Vasanta, Shishir, Sharad, Very cold, Raincoat, Hemanta, Cold things, Grishma

1. How's the weather in winter? _____
2. What do you wear in varsha ritu to protect yourself? _____
3. What would you like to eat or drink the most in summers? _____
4. I come between winter and summer. New plants grow when I come. What season am I? _____
5. Name the season that comes before Vasanta. _____
6. All around you there are leaves and leaves. The trees are shedding leaves all the time. Which ritu is it? _____
7. The season when it becomes very hot is _____

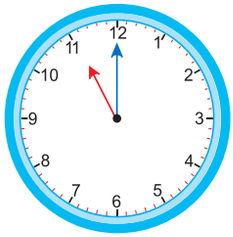
CHAPTER TEST

1. Match the correct times to the clocks.

11 o' clock



Half past 7



8 o'clock

Half past 2

2. Fill in the blanks.

(a) There are 7 _____ in a week.

(b) If yesterday was Wednesday then tomorrow will be _____ .

(c) A leap year has _____ days.

(d) The year 2016 is a leap year. (True/false) _____

(e) On a clock, the hour hand is between 9 and 10 and the minute hand is at 6, the time shown by the clock is _____.

(f) _____ is the tenth month of the year.

(g) _____ is the season that comes after Spring.

3. The calendar for December, 2015 is shown below. Observe it and fill in the blanks.

December, 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

(a) The date on the last Saturday of December is _____.

(b) The month of December has _____ Thursdays in all.

(c) The day of the week just after December 9 is _____.

(d) The last day of December is on a _____.

(e) The date on the third Tuesday of December is _____.

Worksheet

Look at the current year's calendar and answer the following questions.

1. On which day of the week does Mahatma Gandhi's birthday (October 2) fall? _____
2. What is your birth date? _____
3. On which day does your birthday fall this year? _____
4. Write the date on which your school reopened after the summer vacation. _____
5. On which day of the week does Christmas (December 25) fall this year? _____
6. Write the date for the fifteenth day of the month of August. _____
   What is special about this day? _____

Project

Make Your Own Calendar

Make the calendar for the month on which your birthday falls (for the current year). Use colour pencils to design it.

Also show on the calendar holidays, special days of the school and birthdays of your friends etc.

The basic format should be:

Year: _____ Month: _____

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

12 Geometry

Warm Up

Vocabulary

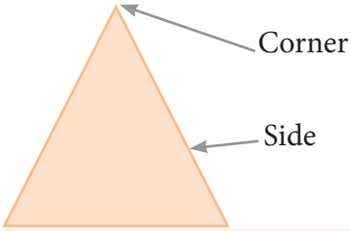
- Horizontal
- Vertical
- Slanting
- Rectangle
- Square
- Triangle
- Circle
- Cuboid
- Cube
- Sphere
- Cylinder
- Cone

PLANE SHAPES

Plane shapes are shapes that can be drawn on a flat surface such as paper.

We are already familiar with the plane shapes such as rectangle, square, triangle, circle and oval.

Look at the shapes and identify. Then fill in the blanks with their name and learn more about the shapes.

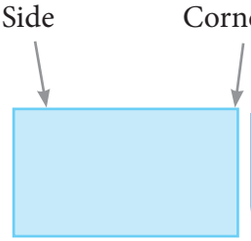


This is a _____.
It has three sides and three corners.

This is a _____.
It has no sides or corners.

This is an _____ shape.

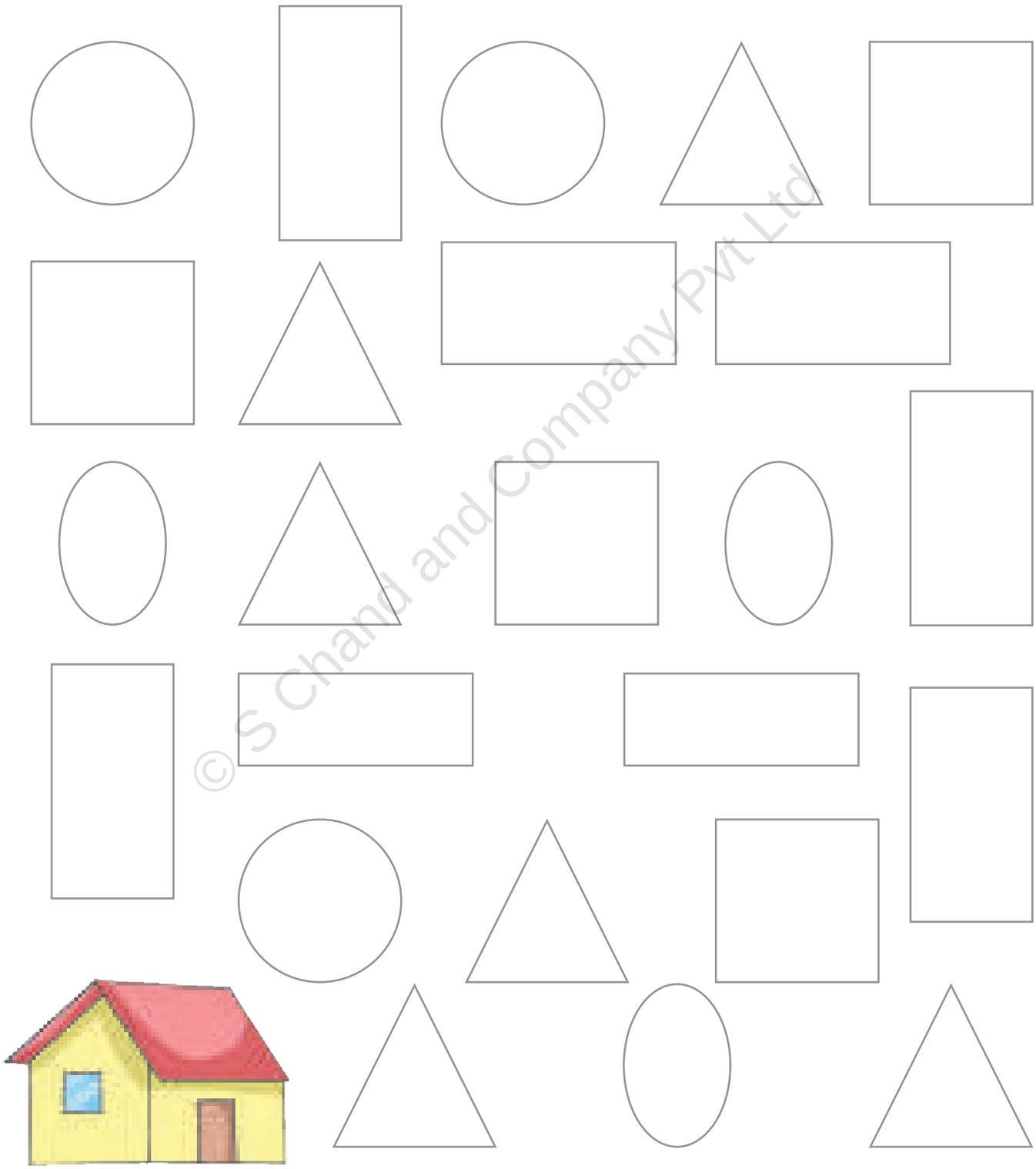
This is a _____.
It has four corners and four sides. All its sides are equal.



This is a _____.
It has four corners and four sides. Its opposite sides are equal.

Fun Activity

Help this dog find his way home by colouring the rectangles brown. Then colour the circles yellow, triangles green, ovals red and squares blue.



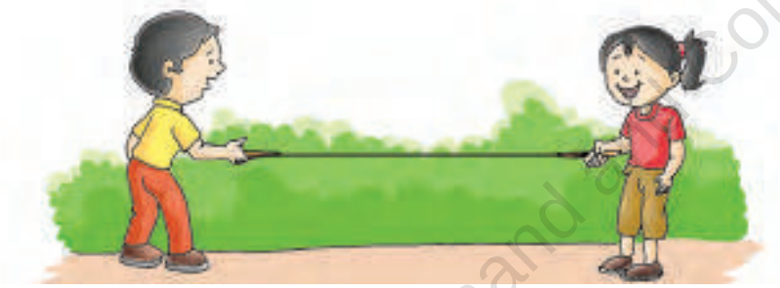
Project

Look for at least 3 objects of different shapes in your surroundings like the classroom, garden, your home and prepare a table writing the names of objects against each shape.

Shape	Names of objects
Rectangle	
Square	
Triangle	
Circle	
Oval	

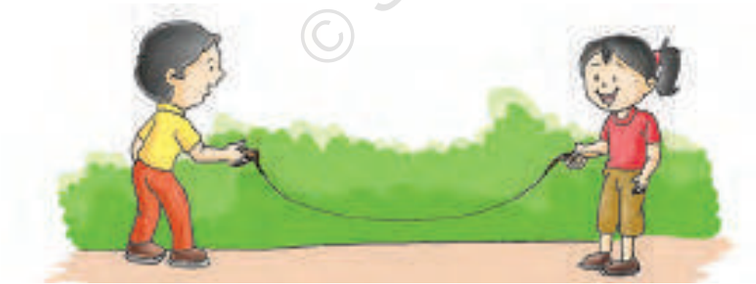
STRAIGHT LINES AND CURVED LINES

Two children were holding a skipping rope at each end. They stretched it tight. The skipping rope forms a straight line as shown below.



Straight Line

Now they hold the rope a bit loose. The skipping rope forms a curved line as shown below.



Curved Line

A line is represented as:

The arrows at both the ends show that a line does not stop, it continues in both directions without ending.

Line Segment

The part of a line is called a **line segment**.

Types of Straight Lines

Straight lines are of 3 types:

1. **Horizontal or sleeping line:** A horizontal or sleeping line is that which goes straight across.

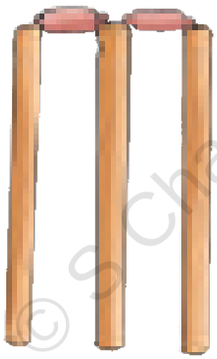
   The lines on your writing paper are examples of horizontal lines.

Horizontal Line
or
Sleeping Line

2. **Vertical or standing line:** A vertical or standing line is that which goes straight up and down.

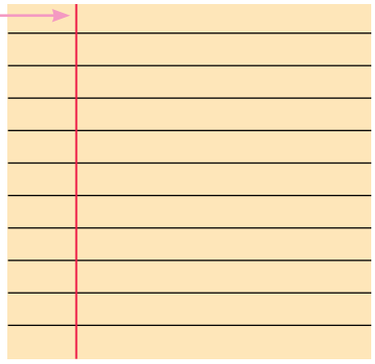
   A cricket stump standing on the ground, the margin line in your notebook are examples of **vertical lines**.

Vertical Line
or
Standing Line



Cricket stumps

Margin Line



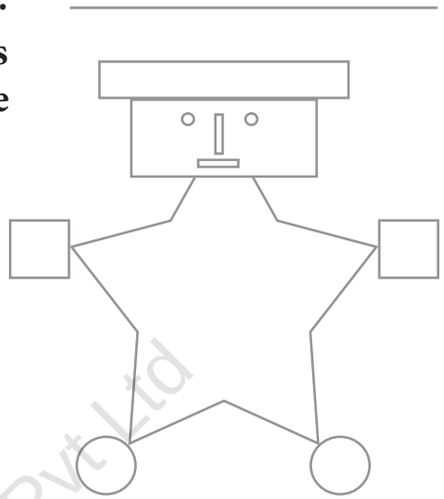
A page of your notebook

3. **Slanting line:** A slanting line goes straight as the slope of a hill.

Slanting Line

Class Work

Rohan has drawn a figure using different types of lines. Count the number of horizontal, vertical and slanting lines in the given picture and write the number in each of the given blank box.



Horizontal Lines ☐

Vertical Lines ☐

Slanting Lines ☐

EXERCISE 12A

1. Write the number of lines (horizontal, vertical and slanting) which make each of these letters of the alphabet.

(a) 

Horizontal = 1
Slanting = 2

(b) 

Vertical = ☐
Slanting = ☐

(c) 

Horizontal = ☐
Vertical = ☐

(d) 

Vertical = ☐
Slanting = ☐

(e) 

Horizontal = ☐
Vertical = ☐

(f) 

Vertical = ☐
Slanting = ☐

(g) 

Horizontal = ☐
Vertical = ☐

(h) 

Vertical = ☐
Slanting = ☐

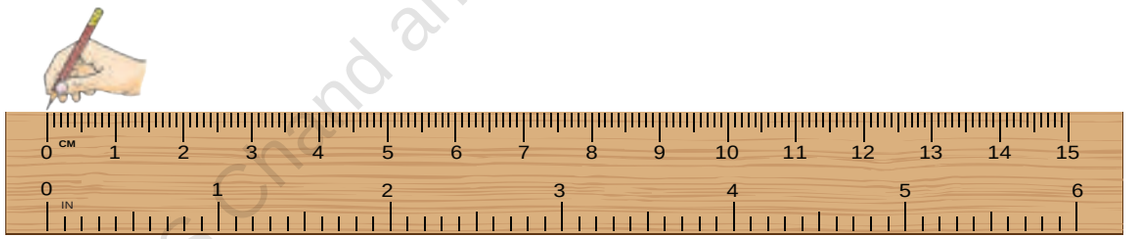
2. Draw the given lines by moving the pencil first on the dotted lines and then draw them freehand.

Horizontal Line	Vertical Line	Slanting Line

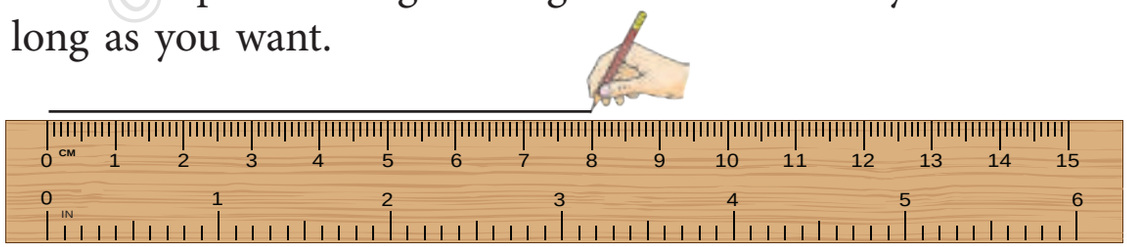
DRAWING A STRAIGHT LINE USING A RULER

To draw a straight line using a ruler we take the following steps.

Step 1: Place the ruler on the sheet of paper where you want to draw the line. Put your pencil on the zero mark of the ruler.



Step 2: Move the pencil along the edge of the ruler till you have a line as long as you want.



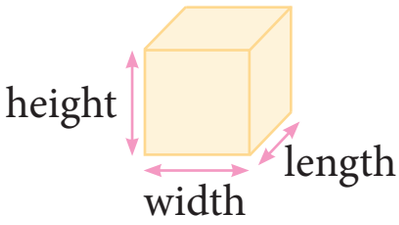
Class Work

Draw lines of the given lengths.

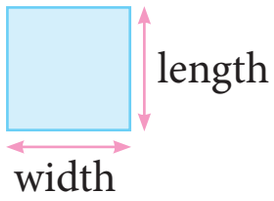
1. 8 cm **2.** 7 cm **3.** 5 cm

SOLID SHAPES

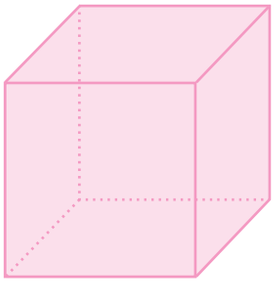
Solid shapes are **three-dimensional shapes** that have three dimensions—**length, width** and **height**.



Plane shapes have only **two-dimensions—length** and **width**.



Common solids and their examples are given below:

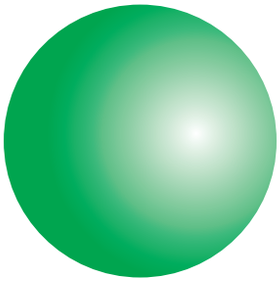


Cube

Cuboid

Cone

Cylinder



Sphere

EXERCISE 12B

Name the solid shape that each object is shaped like. One has been done for you.

1.

Cuboid

2.

3.

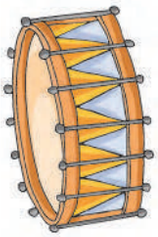
4.

5.

6.

7.

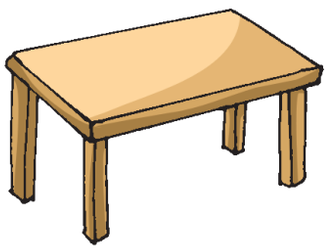
8.

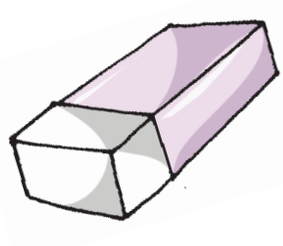


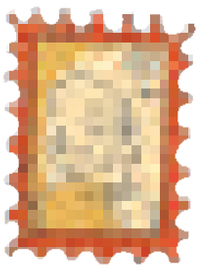
Flat Surfaces and Curved Surfaces

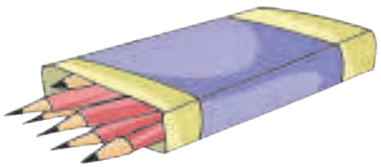
When you move your hand over the table top or the top of your book, does your hand turn? **No**

Such surfaces are called **flat surfaces**.





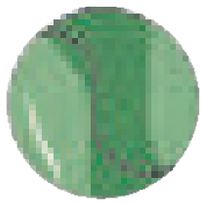




All the objects shown above have flat surfaces.

When you move your hand over surface of a ball or an orange does your hand turn? **Yes**.

These objects have a **curved surface**.




All the objects shown above have curved surfaces.

Note:

1. You can stack objects with flat surfaces, that is, you can keep a ruler one above the other and so on.
2. You can roll objects with curved surfaces, that is, a ball and a glue stick can be rolled.

Class Work

Look at the objects and fill in the blanks.

1.  An orange has [0] flat surfaces and [1] curved surface.

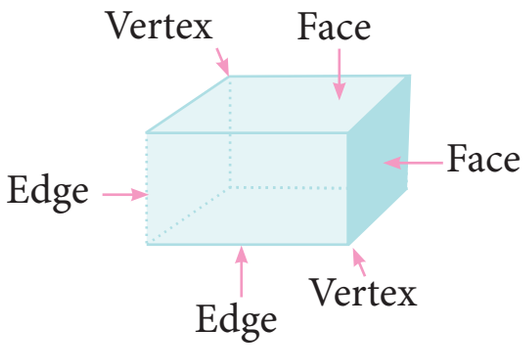
2.  A can has [ ] flat surfaces and [ ] curved surface.

3.  An ice cream has [ ] a flat surface or [ ] curved surface.

4.  A tissue box has [ ] flat surface and [ ] curved surface.

Face, Edge and Vertex of a Solid Shape

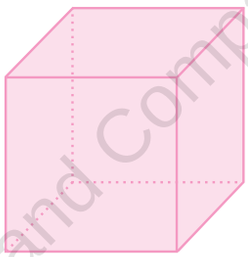
- A **face** is a flat surface of a solid shape.
- An **edge** is a line segment or side where two faces meet.
- A **vertex** (plural vertices) is a point where three or more sides meet.
- Objects shaped like a sphere have only one curved surface.



Class Work

Identify the solid figure and then write the number of faces, edges and vertices. (The child should in fact take a concrete shape in hand and count.)

Faces: _____
Edges: _____
Vertices: _____

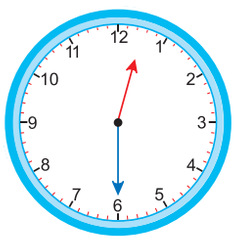


Faces: _____
Edges: _____
Vertices: _____

Faces: _____
Edges: _____
Vertices: _____

Quick Review

1. Rani has lunch at the time shown by the given clock.
   What time is it? _____



2. Kathy buys a watch for ₹ 216.50 and a book for ₹ 105.30 less.
   What is the cost of the book?
3. **Which of the following is the least?**
   100 mL, 10 L, 1 L, 10 mL.

CHAPTER TEST

1. Read the clues and identify the figures.

(a) I am a plane shape with four equal sides. _____

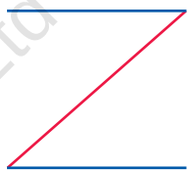
(b) I am a solid shape with six square faces. _____

(c) I am a solid shape that can roll and have no flat face? _____

(d) If you place a glue stick on a sheet of paper and trace one of its flat face, what shape do you get? _____

2. Tick (✓) the correct answer.

(a) The red line that makes up the letter Z is a



(i) horizontal line ☐ (ii) slanting line ☐

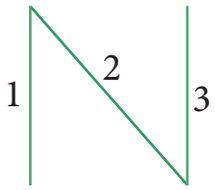
(iii) vertical line ☐

(b) The blue line that makes up the letter Z is a

(i) horizontal line ☐ (ii) vertical line ☐

(iii) slanting line ☐

(c) Which of the lines that make up the letter N are vertical lines.



(i) 1, 2, 3 ☐ (ii) 2 ☐ (iii) 1, 3 ☐

3. (a) What shape does this object resemble? _____

(b) How many flat surfaces it has? _____

(c) How many curved surfaces it has? _____

4. Choose the best term from the box and fill in the blanks.

edge, three, face, roll, dimensions

(a) The flat surface of a solid shape is called a _____.

(b) The side formed by the meeting of two faces of a solid shape is an _____.

(c) A solid shape with a curved surface can _____.

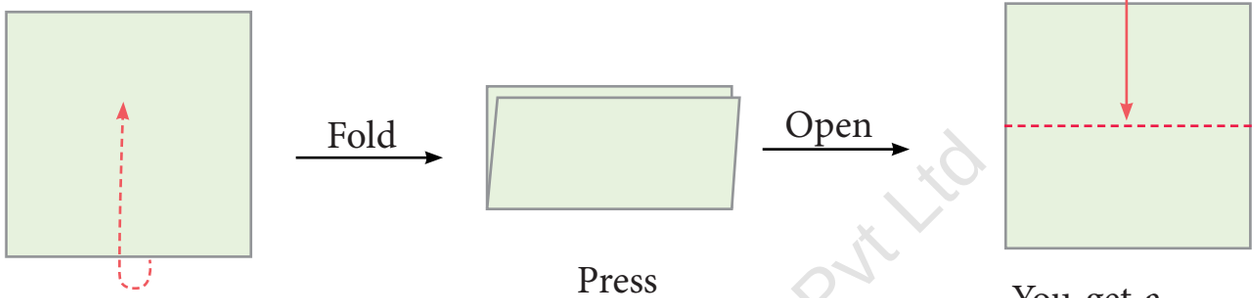
(d) Plane shapes have two _____ whereas solid shapes have _____ dimensions.

Maths Lab Activity (Teacher to Assist)

MAKING HORIZONTAL, VERTICAL AND SLANTING LINES BY PAPER FOLDING

Take a square sheet of paper as given and see what you get!

1.

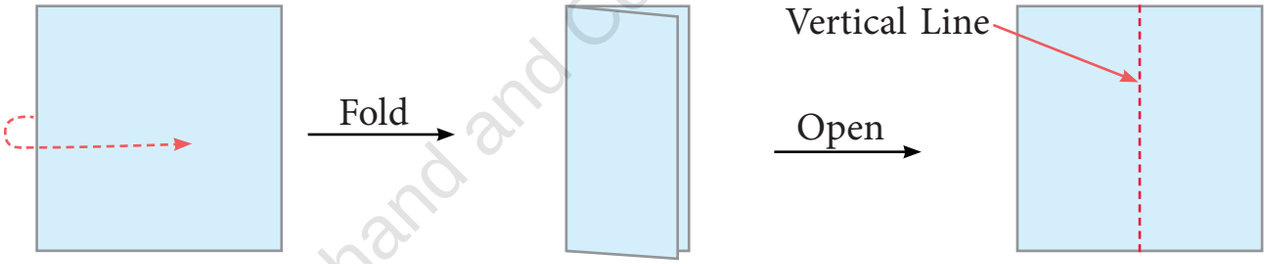


Fold it along the middle by turning right.

Press

You get a horizontal line.

2.

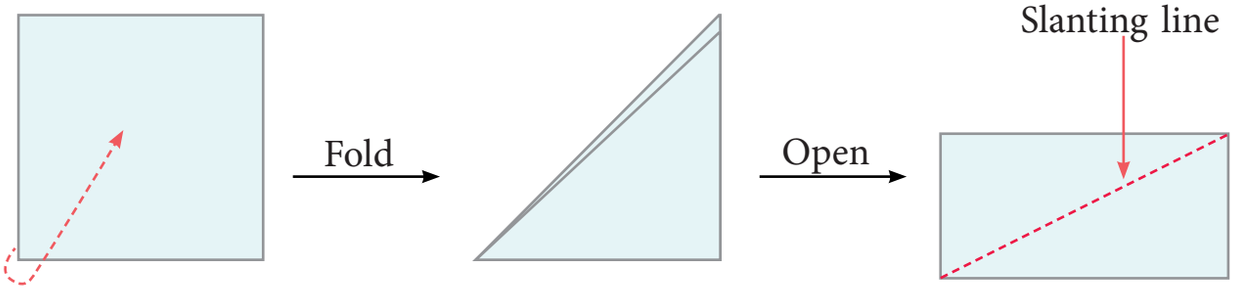


Fold it along the middle by turning up.

Press

You get a vertical line.

3.



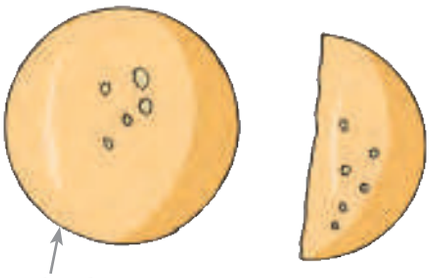
Fold as shown

Press

You get a slanting line.

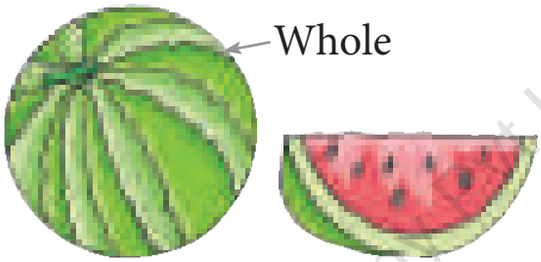
Now, try and fold the same square sheet twice to get two slanting lines.

13 Fractions



Whole

One-half of a whole



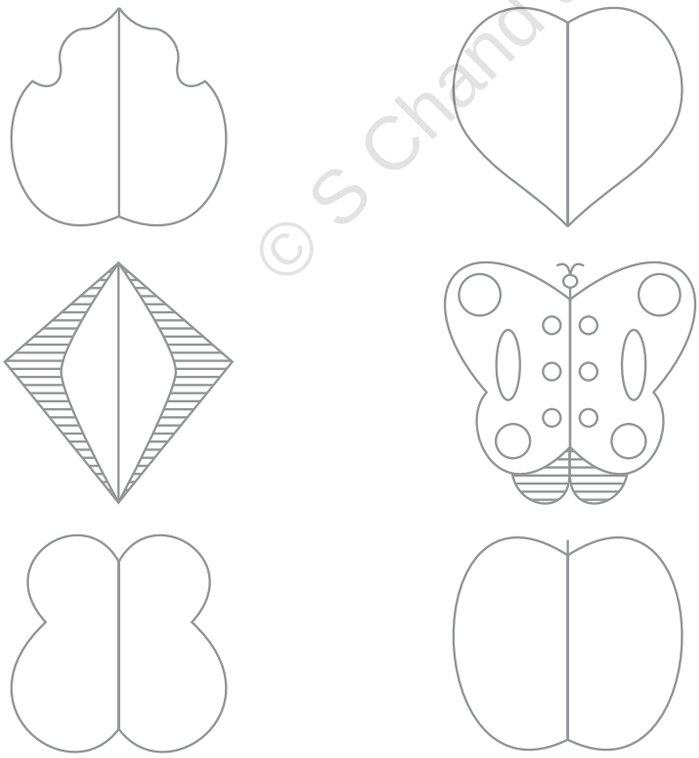
This is not one-half.

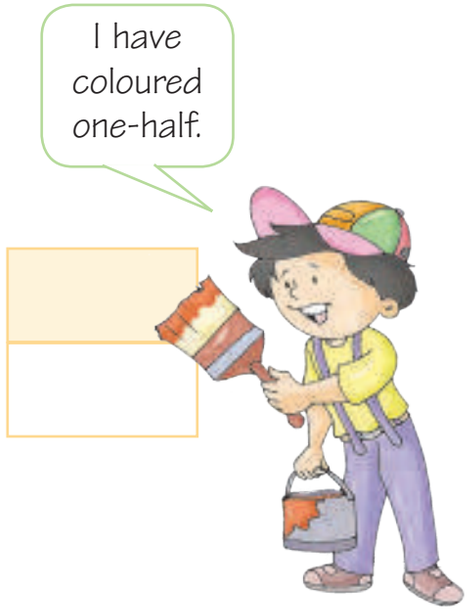
Vocabulary

- One-half
- One-third
- One-fourth
- Two-third
- Three-fourth

Class Work

Colour one-half of each.

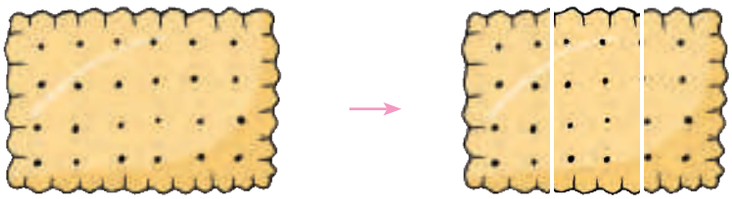




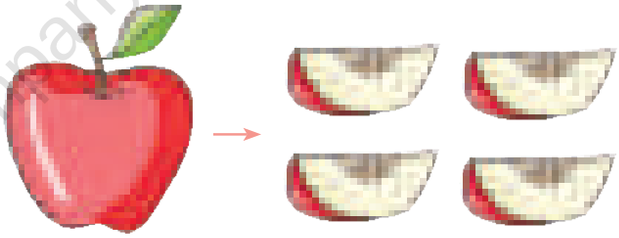
FRACTIONAL PARTS OF A WHOLE

The cake is cut into two equal parts.
Each part is called one-half of the cake.
We write **one-half** as $\frac{1}{2}$.

The biscuit is cut into three equal parts.
Each part is called one-third of the biscuit.
We write **one-third** as $\frac{1}{3}$.



The apple is cut into four equal parts.
Each part is one-fourth or one-quarter of the apple.
We write **one-fourth** as $\frac{1}{4}$.

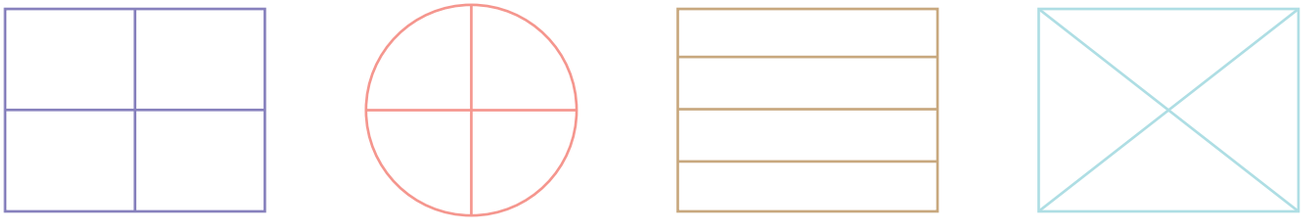


EXERCISE 13A

1. Colour one-half $\left(\frac{1}{2}\right)$ of each figure.

2. Colour one-third $\left(\frac{1}{3}\right)$ of each figure.

3. **Colour one-fourth $\left(\frac{1}{4}\right)$ of each figure.**



4. **What part of each figure is coloured? Ring the correct answer.**

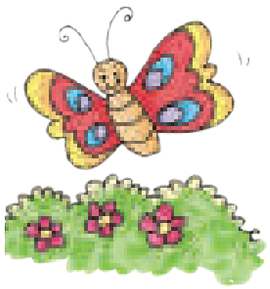
$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$

THIRDS

$\frac{1}{3}$ tells 1 part out of 3 equal parts.

$\frac{2}{3}$ tells 2 parts out of 3 equal parts.

$\frac{3}{3}$ tells 3 parts out of 3 equal parts.



EXERCISE 13B

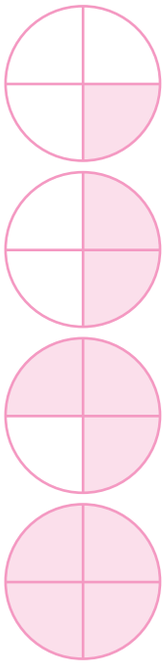
1. **What part of each figure is coloured? Ring the correct fraction.**

$\frac{1}{3}$ $\frac{3}{3}$ $\frac{1}{3}$ $\frac{2}{3}$ $\frac{2}{3}$ $\frac{3}{3}$

2. Colour the fractional part of each figure as stated.

$\frac{1}{3}$ $\frac{2}{3}$ $\frac{3}{3}$

FOURTHS

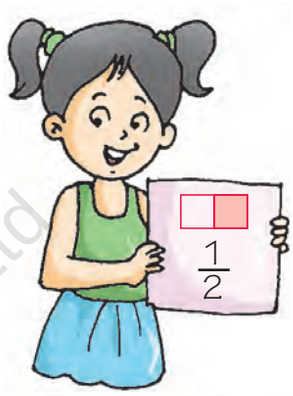


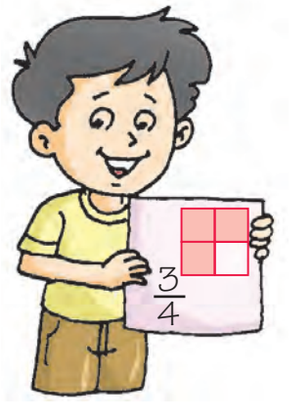
$\frac{1}{4}$ tells 1 part out of 4 equal parts.

$\frac{2}{4}$ tells 2 parts out of 4 equal parts.

$\frac{3}{4}$ tells 3 parts out of 4 equal parts.

$\frac{4}{4}$ tells 4 parts out of 4 equal parts.



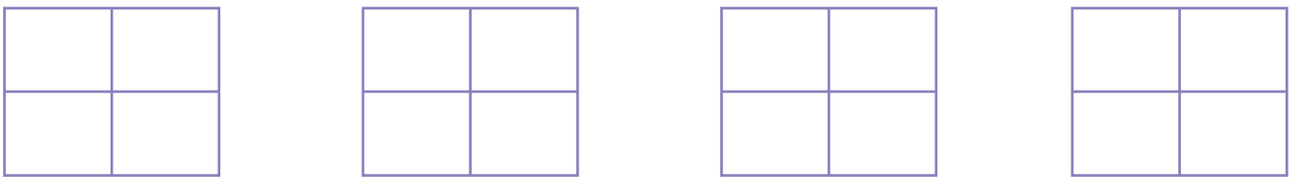


EXERCISE 13C

1. What part of each figure is coloured? Ring the correct fraction.

$\frac{1}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{1}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{2}{4}$

2. Colour fractional parts of each figure as stated.



$\frac{4}{4}$ $\frac{3}{4}$ $\frac{1}{4}$ $\frac{2}{4}$

CHAPTER TEST

1. Circle the fraction in numbers and words that match the figure.

(a) 

One-twos	One-half	$\frac{2}{1}$	$\frac{1}{2}$

(b) 

$\frac{1}{4}$	One-fourth	$\frac{1}{3}$	One-fours

(c) 

$\frac{1}{2}$	One-third	$\frac{1}{3}$	One-threes

2. Cross the fractional part that does not belong in each row.

(a)			One-third	
(b)	One-half			
(c)	Three-fourth			

Tick (✓) the correct answer.

3. What fraction of this figure is shaded?

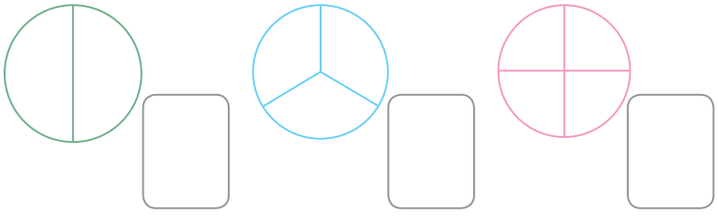
(a) $\frac{1}{4}$ ☐ (b) $\frac{2}{3}$ ☐ (c) $\frac{3}{4}$ ☐ (d) $\frac{1}{2}$ ☐

4. How many one-thirds are there in a whole?

(a) 4 ☐ (b) 2 ☐ (c) 1 ☐ (d) 3 ☐

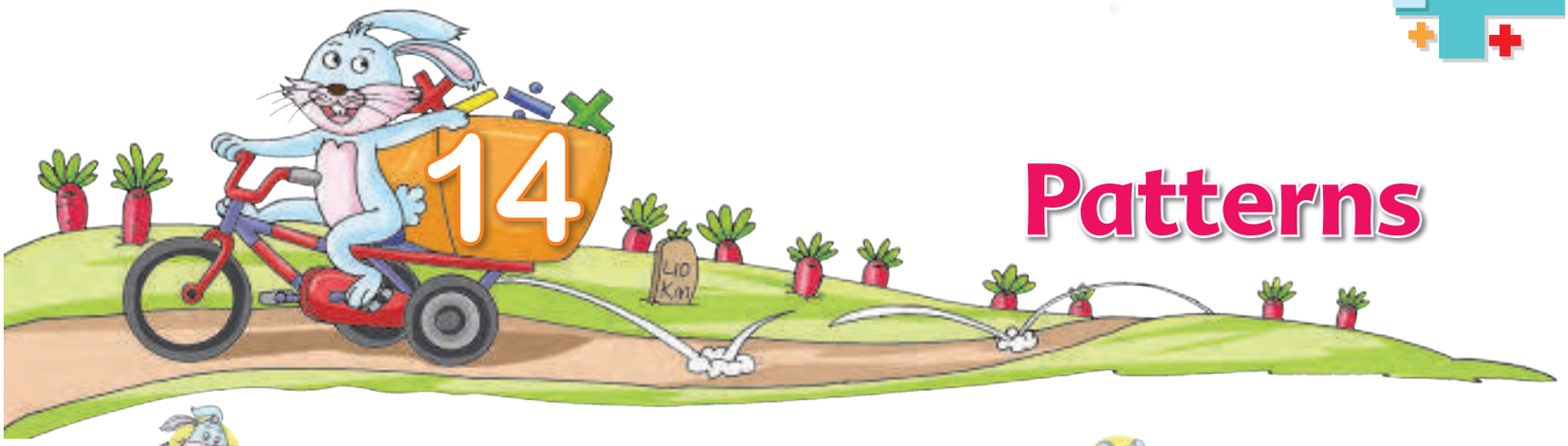
HOTS

The circles are of the same size. Colour one-part of each circle and name the fraction below it.



Now can you order the fractions from least to greatest by seeing the coloured parts of each circle?

_____, _____, _____

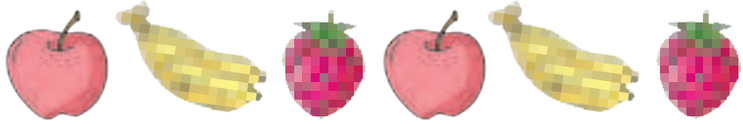


14 Patterns

Warm Up

We know that patterns are formed by repeating a certain object or set of objects over and over again.

Try to draw the next shape/figure in the following patterns.



Vocabulary

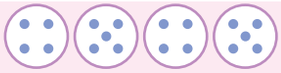
- Number Patterns
- Rangoli Patterns

PATTERNS AROUND US

We observe patterns everywhere around us. A rangoli made during festivals, the carpet at home, the grill patterns on your windows, the tiles on your bathroom wall and floor, the block print patterns on the bed covers etc. are some of the common patterns we see.

EXERCISE 14A

Observe the following patterns and fill up the blank space by drawing the shapes/ figures which would come next.

1. 
2. 
3. 
4. 
5. 
6. 
7. 

PATTERNS USING MATCHSTICKS

You can also make different patterns using matchsticks like the following:

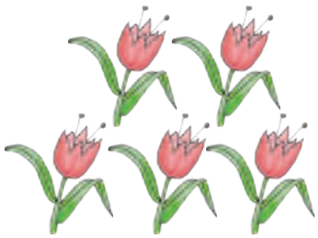
Try making some patterns yourself.

NUMBER PATTERNS

A. Look at the following pictures.

1 flower

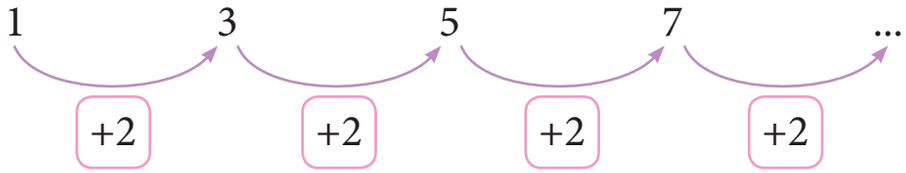
3 flowers



5 flowers

7 flowers

Using the numbers the sequence is:



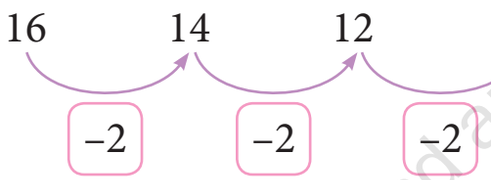
The rule to go from one number to the next is **add 2.**

B. Smaller and smaller

In the pictures shown in part A, the number of flowers goes on increasing. In the pattern 1, 3, 5, 7, ... the number grows larger each time.

Sometimes, the numbers in a pattern go on decreasing. Suppose, there are 16 flowers on a plant. A lady plucks two flowers each day for her worship. The number of flowers on the plant goes on decreasing by 2 each day.

The pattern is

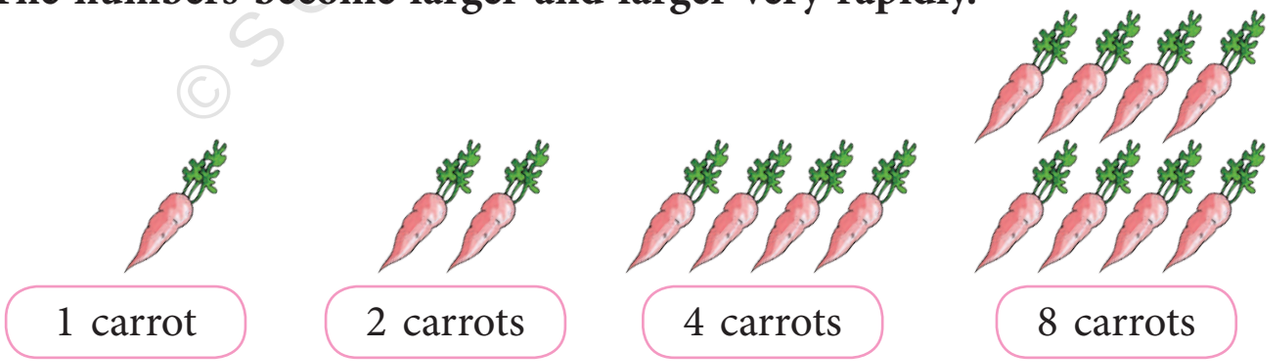


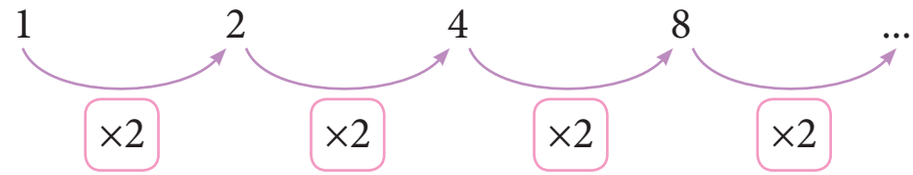
____, ____, ____, 2, 0.

... The missing numbers are 8, 6 and 4.

The rule of the above pattern is **take away 2 each time.**

C. The numbers become larger and larger very rapidly.



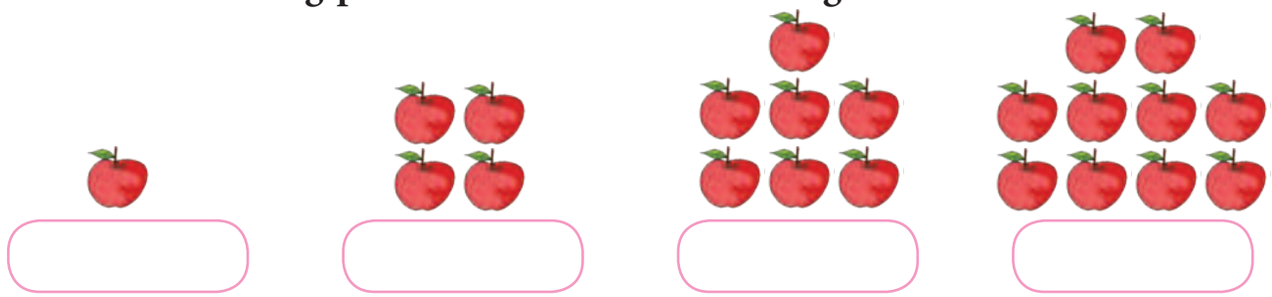


The rule to go from one term to the next is **multiply by 2.**

EXERCISE 14B

1. Observe the following patterns and write them using numbers.

(a)



(b)

2. Write the next three terms in each sequence.

(a) 0, 3, 6, 9, ____, ____, ____

(b) 4, 9, 14, 19, ____, ____, ____

(c) 10, 15, 20, 25, ____, ____, ____

(d) 18, 25, 32, 39, ____, ____, ____

(e) 40, 35, 30, 25, ____, ____, ____

(f) 70, 60, 50, 40, ____, ____, ____

(g) 2, 4, 8, 16, ____, ____, ____

(h) 5, 10, 20, 40, ____, ____, ____

3. I am the seventh number in the sequence of numbers:
4, 6, 8, 10, ...
What number am I? _____

4. I am the eighth number in the sequence 9, 18, 27, 36, ...
What number am I? _____

5. Complete the following sequence of numbers by spotting the pattern.

(a) 4, 7, 10, ____, 16, ____, 22.

(b) 1, 3, 9, 27, ____.

(c) 10, ____, 30, 40, ____, 60, ____

(d) 38, 35, 32, ____, ____, 23, 20, ____, 14.

6. A child's height when he is 1 year old is 60 cm and a year later it is 70 cm. Assuming the child grows the same height each year, find the height of the child when he is 5 years old.

CHAPTER TEST

1. Draw the next two figures in the following patterns.

(a)  _____ _____

(b)  _____ _____

2. Observe the following number patterns and write the next three numbers.

(a) 16, 21, 26, 31, 36, _____, _____, _____

(b) 55, 52, 49, 46, 43, _____, _____, _____

(c) 2, 4, 8, 16, 32, _____, _____, _____

(d) 98, 87, 76, 65, 54, _____, _____, _____

Tick (✓) the correct answer.

3. The missing number in the given pattern is
5, 12, 19, 26, _____, 40, 47

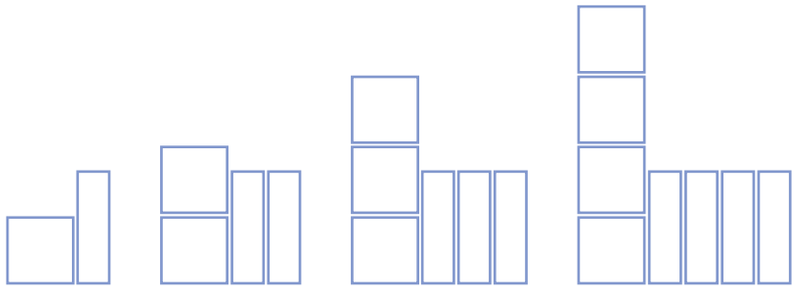
(a) 29 ◯ (b) 31 ◯ (c) 37 ◯ (d) 33 ◯

4. The missing figure in the given pattern is

(a)  ◯ (b)  ◯ (c)  ◯ (d)  ◯

HOTS

Charu has made towers with blocks. How many blocks would be needed to make the 7th tower?

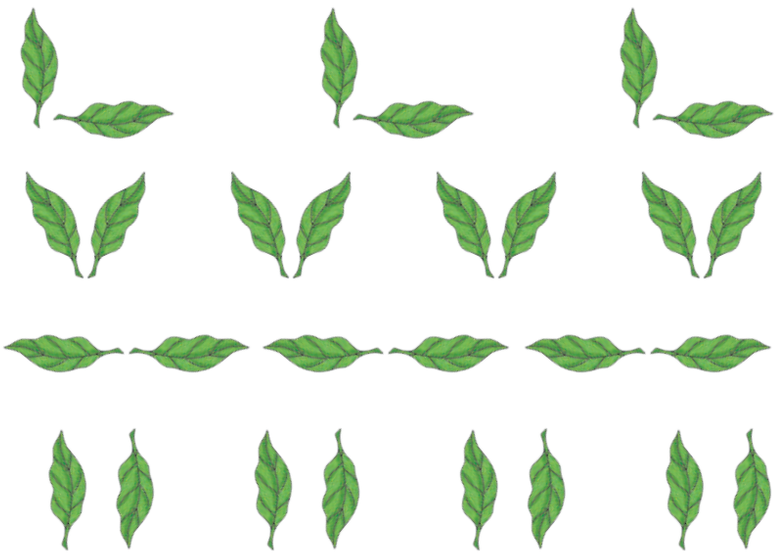


1st tower 2nd tower 3rd tower 4th tower

.....

Activity

1. See how Radhika made such nice patterns with a simple leaf.



Collect some leaves and arrange them in different patterns.

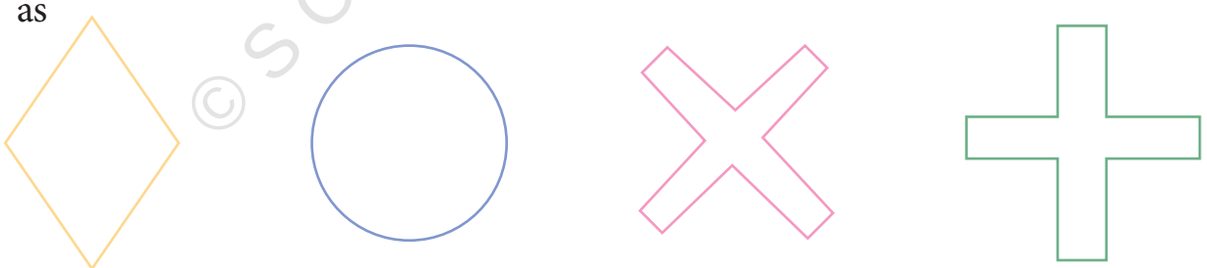
2. Creating patterns by stamping.

(a) By your fingers and thumbs

Put some ink or colour on your finger tips and thumb. Press hard on paper to create patterns.

(b) By vegetables

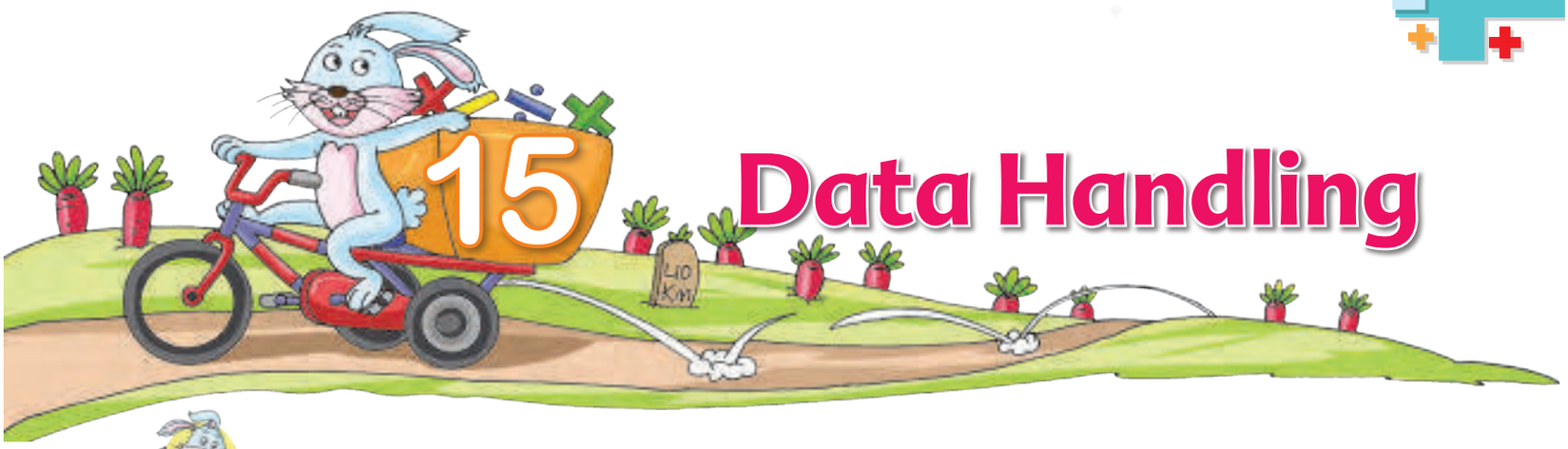
Take a hard vegetable as a potato or carrot. Cut the vegetable in different shapes as



Dip each piece in paint or colour and press hard on a paper to create a variety of block patterns.

(c) The ladyfinger can be cut horizontally and dipped in paint, then pressed hard on a paper to create a pattern.

3. Take a 2-digit number. Write a number pattern that begins with this number and uses subtraction as a rule.

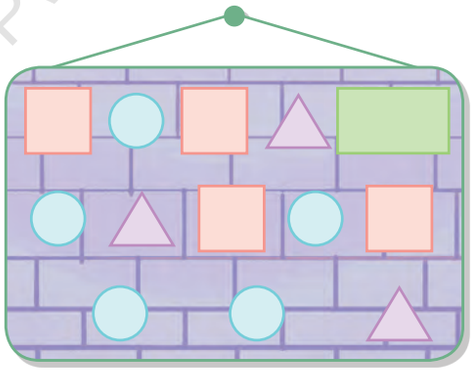


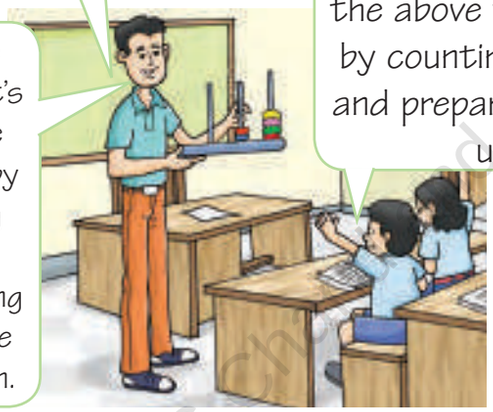
15 Data Handling

Warm Up

Mohit looks at the chart showing different shapes hanging on the wall. Can you tell

1. how many times each of the shapes occurs?
2. which shape occurs the most and which the least?





You are right. Let's find the answer by drawing and completing the table as shown.

Yes sir, we can answer the above two questions by counting each shape and preparing a table as under.

Vocabulary

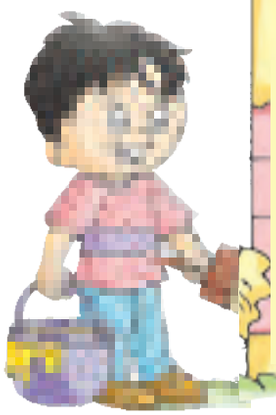
- Data

Name of shapes	Tick mark	Number of shapes
Square	✓ ✓ ✓ ✓	4
Circle	✓ ✓ ✓ ✓ ✓	5
Triangle	✓ ✓ ✓	3
Rectangle	✓	1

So, the number of circles is the greatest, that is, 5 and the number of rectangles the least, that is 1.

ANALYSING DATA

Example: The heights of students of class 2 of a school are as follows:



Amar	:	75 cm	Ankit	:	70 cm
Ananya	:	72 cm	Ayush	:	72 cm
Ayushree	:	74 cm	Pankaj	:	73 cm
Vaibhav	:	74 cm	Aadhar	:	75 cm
Krishna	:	69 cm	Nikhar	:	72 cm
Prafulla	:	73 cm	Monty	:	69 cm
Sanjay	:	68 cm	Manasi	:	74 cm
Ishan	:	75 cm	Sameer	:	70 cm

To find out how many children are there in each height group (smallest to greatest), we can make a table. Starting from the first child put a tick against each height. Then count the ticks.

Height (in cm)	Tick mark	Number of children
68 cm	✓	1
69 cm	✓ ✓	2
70 cm	✓ ✓	2
72 cm	✓ ✓ ✓	3
73 cm	✓ ✓	2
74 cm	✓ ✓ ✓	3
75 cm	✓ ✓ ✓	3

We can also represent the above information using blocks. Colour a block for each child.

Height (in cm)	Number of children
68 cm	
69 cm	
70 cm	
72 cm	
73 cm	
74 cm	
75 cm	

From the above table, we can see that we have three children each with heights 72 cm, 74 cm and 75 cm.

How many children have 68 cm as their height? *One.*

EXERCISE 15

1. Given below are the weights of some children of class 2.

22 kg, 24 kg, 25 kg, 23 kg, 22 kg, 22 kg, 24 kg, 26 kg, 25 kg, 23 kg, 24 kg, 24 kg, 25 kg, 23 kg, 22 kg.

Colour a block in the given table for each child.

Weight (in kg)	Number of children
22 kg	
23 kg	
24 kg	
25 kg	
26 kg	

2. The following table shows the number of birthdays of the students of class 2B in each month.

Month	Number of Students
January	☺ ☺ ☺ ☺
February	☺ ☺
March	☺ ☺ ☺
April	☺
May	☺ ☺ ☺
June	☺ ☺ ☺ ☺
July	☺ ☺ ☺ ☺ ☺ ☺
August	☺ ☺
September	☺ ☺ ☺ ☺
October	☺ ☺ ☺ ☺ ☺
November	☺ ☺ ☺
December	☺ ☺

Count the smilies and answer the following questions.

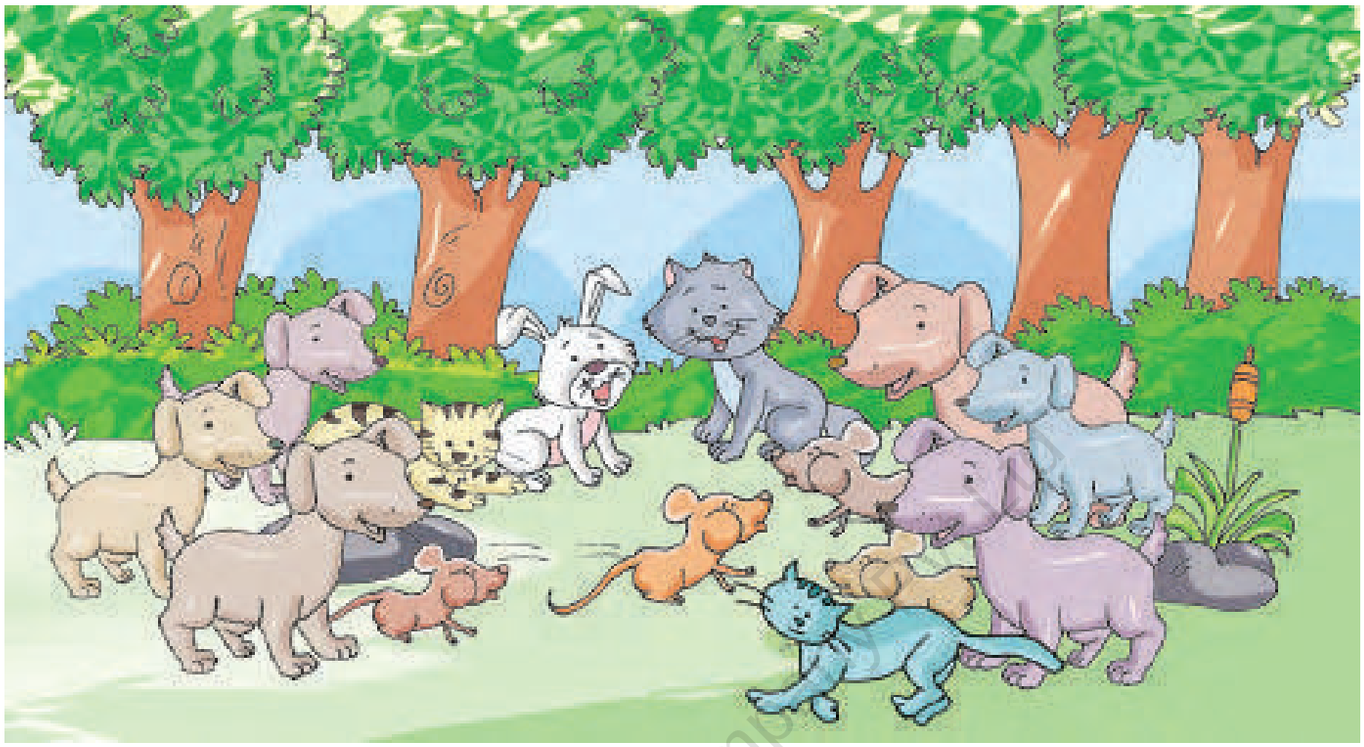
(a) In which months do 4 children have their birthdays? _____

(b) Which month has the most number of birthdays? _____

(c) Which month has the least number of birthdays and how many? _____

(d) How many birthdays does the month of October have? _____

3. Look at the number of different animals in the picture.



Count the number of each animal and colour the same number of blocks for each animal.

Animal	Number
	
	
	
	

Fill in the blanks.

(a) The animal present in the largest number is _____ .

(b) There are 4 _____ in the picture.

(c) The animal present in the smallest number is _____ .

Worksheet

1. Ask 10 people around you to tell you their favourite hobby from among those given below.

Put a tick (✓) in the table for each answer.

Activity	Favourite hobby
Reading	
Gardening	
Dancing	
Playing Outdoors	
Using the Internet	
Swimming	

2. Use your table to complete the block graph by colouring as many blocks as the number of ticks for each hobby.

Reading										
Gardening										
Dancing										
Playing Outdoors										
Using the Internet										
Swimming										
	1	2	3	4	5	6	7	8	9	10

Model Test Paper – 2

(Based on Chapters 7 to 15)

1. Danny put 63 bottles of juice in a box. There were 7 equal rows of bottles in the box. How many bottles were there in each row of the box?

2. Nikhil has two 10-rupee notes, five 2-rupee coins, one 50-rupees note and two 5-rupee notes. Does he have enough money to buy a board game costing ₹ 95?
Ans: _____

3.
- ❖ I am a solid shape with 2 flat surfaces and 1 curved surface.
- ❖ Each of my flat surfaces is a circle.
- ❖ I resemble a can of soft drink.

What am I? _____

4. Divya's weight is 52 kg. She is 12 kg lighter than Mrinal but 8 kg heavier than Ira. What is the total weight of the three girls?

5. **Sachin and Tony went to the zoo and saw some animals. They drew stars to show the number of each animal. Count the stars and answer the questions that follow.**

Animals	Animals in the zoo
Monkey	☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆
Lion	☆ ☆
Zebra	☆ ☆ ☆ ☆
Giraffe	☆ ☆ ☆ ☆ ☆
Elephant	☆ ☆ ☆ ☆ ☆ ☆

Each ☆ = 1 animal

(a) How many more elephants are there than lions? _____

(b) Which animal was found in most numbers in the zoo? _____

(c) How many Zebras and Giraffes were there in all? _____

Tick (✓) the correct answer.

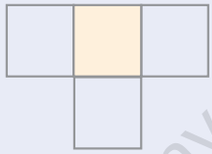
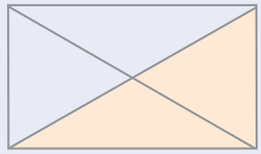
6. Kiran poured milk in a glass. Which unit of measurement should Kiran use to measure the amount of milk in the glass?

(a) litres ☐ (b) kilogram ☐ (c) millilitres ☐ (d) grams ☐

7. Daisy goes for her swimming classes in the evening at "half past four". Which of the following clocks shows the time?

(a)  ☐ (b)  ☐ (c)  ☐ (d)  ☐

8. Which of the following figures does not belong to the group?

(a)  ☐ (b)  ☐ (c)  ☐ (d)  ☐

9. Which of the following numbers comes next and completes the following pattern?
8, 16, 32, _____ , 128, 256

(a) 36 ☐ (b) 64 ☐ (c) 40 ☐ (d) 48 ☐

10. There are 40 cookies to be divided among 9 children at a party. If each child receives the same number of cookies, how many cookies will each child receive and how many will be left over?

(a) Receive 4, left over 4 ☐ (b) Receive 4, left over 2 ☐

(c) Receive 4, left over 6 ☐ (d) Receive 4, left over none ☐

Answers

CHAPTER 1: LOOKING BACK

Exercise 1A

2. (b) 39 (c) 99 (d) 44 (e) 65 (f) 72

3. (b) ninety-eight (c) eighty-nine (d) seventy-six
(e) forty-eight (f) fifty-seven (g) one hundred
(h) sixty-four

4. (a) 17, 18, 19, 20, 21, 22, 23, 24, 25
(b) 23, 24, 25, 26, 27, 28, 29, 30, 31
(c) 64, 65, 66, 67, 68, 69, 70, 71, 72

5. (a) 77, 76, 75, 74, 73, 72, 71, 70, 69
(b) 44, 43, 42, 41, 40, 39, 38, 37, 36
(c) 92, 91, 90, 89, 88, 87, 86, 85, 84

6. (b) 63, 65 (c) 88, 90 (d) 28, 30 (e) 72, 74 (f) 76, 78
(g) 32, 34 (h) 59, 61 (i) 55, 57

7. (b) 72 (c) 50 (d) 90 (e) 38 (f) 94
(g) 87 (h) 65 (i) 49

8. (a) 48 (b) 66 (c) 74 (d) 90 (e) 1 and 3

9. (a) 7, 9, 11, 13, 15, 17, 19, 21
(b) 15, 18, 21, 24, 27, 30, 33, 36
(c) 71, 75, 79, 83, 87, 91, 95, 99

10. (a) 4, 6, 8, 10, 12, 14, 16, 18
(b) 43, 45, 47, 49, 51, 53, 55, 57

11. (a) 6, 9, 12, 15, 18, 21, 24, 27
(b) 31, 34, 37, 40, 43, 46, 49, 52

12. (a) 3, 8, 13, 18, 23, 28, 33, 38
(b) 37, 42, 47, 52, 57, 62, 67, 72

13. (a) 2, 12, 22, 32, 42, 52, 62, 72
(b) 29, 39, 49, 59, 69, 79, 89, 99

Exercise 1B

1. Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

2. N, P, T, W, S

Exercise 1C

1. (a) 3, 6, 9
(b) 22, 24, 26, 28
(c) 38, 39
(d) 53, 54, 55

3. (b) 9 (d) 10 (e) 2 (f) 5

Exercise 1D

2. (b) 10, Ten (c) 52, Fifty-two

3. (b) 23, Twenty-three (c) 40, Forty (d) 3, Three
(e) 46, Forty-six (f) 72, Seventy-two

4. (a) Forty (b) Seventeen (c) Ninety-nine

5. (b) 40 (c) 77 (d) 91

Exercise 1E

1. (b) 50 + 6 (c) 70 + 7 (d) 10 + 9 (e) 30 + 8 (f) 60 + 7

2. (b) 47 (c) 12 (d) 87 (e) 58 (f) 95

Exercise 1F

1. (a) > (b) > (c) > (d) < (e) < (f) >

2. (a) Least number = 19, Greatest number = 84
(b) Least number = 31, Greatest number = 92

3. (b) Ascending: 63, 75, 87; Descending: 87, 75, 63
(c) Ascending: 23, 75, 89, 98; Descending: 98, 89, 75, 23
(d) Ascending: 76, 86, 99, 100; Descending: 100, 99, 86, 76

Exercise 1G

1. (a) 67 (b) 77 (c) 99 (d) 97 (e) 79

2. (a) 14 (b) 32 (c) 6 (d) 23 (e) 3

Exercise 1H

2. (a) 14 (b) 19 (c) 14 (d) 17
(e) 15 (f) 15 (g) 7 (h) 17

Exercise 1I

2. 90 **3.** 61 **4.** 95 **5.** 65 **6.** 72
7. 93 **8.** 75 **9.** 83 **10.** 92

Exercise 1J

1. (b) 19 (c) 34 (d) 56 (e) 18 (f) 43
(g) 87 (h) 36 (i) 37 (j) 36

2. (b) 5 boys (c) 3 rupees (d) 16 books (e) 26 sweets

Exercise 1K

3. (a) Cylinder, Cube (b) Cone, Sphere **4.** (c)

Fun with numbers

1.

2.

CHAPTER 2: NUMBERS UP TO 1000

Exercise 2A

2. 200, Two hundred; 300, Three hundred; 400, Four hundred; 500, Five hundred; 600, Six hundred; 700, Seven hundred; 800, Eight hundred; 900, Nine hundred

Exercise 2B

1. (a) 105 (b) 182 (c) 110 (d) 190 (f) 194
(g) 152 (h) 149 (i) 165 (j) 199

2. (b) One hundred seven (c) One hundred twenty-seven
(d) One hundred six (e) One hundred thirty-four
(f) One hundred fifty-five (g) One hundred sixty-two
(h) One hundred eighty-one (i) One hundred seventy-eight
(j) One hundred twenty-five

4. (a) 116, 117, 118, 119, 120 (b) 180, 181, 182, 183, 184
(c) 197, 196, 195, 194, 193 (d) 105, 107, 109, 111, 113
(e) 120, 110, 100, 90, 80

Exercise 2D

1. (b) 371 (c) 507 (d) 899 (e) 267 (f) 455
(g) 682 (h) 928

2. (a) Two hundred seventeen (b) Three hundred twenty-five
(c) Eight hundred thirty-two (d) Four hundred sixteen
(e) Seven hundred two (f) Nine hundred
(g) Six hundred seventy-five (h) Eight hundred sixty-seven
(i) Five hundred eighty-nine (j) Six hundred nineteen

3. (a) iv (b) vi (c) i (d) ii (e) vii (f) iii (g) v

4. (b) 764 (c) 812 (d) 358 **5.** (b) 624 (c) 594 (d) 790

6. (a) 100, 200 (c) 400, 500 (d) 200, 300

7. (a) 150, 160 (b) 740, 750 (c) 390, 410

8. **(a)** 279 **(b)** 452, 453 **(c)** 799 **(d)** 649, 650
(e) 630, 631, 632, 633, 634 **(f)** 865, 866, 867, 868, 869

Exercise 2E

1. **(a)** 30 **(b)** 300 **(c)** 3 **(d)** 300 **(e)** 3 **(f)** 300
2. **(a)** 80, 8 **(b)** 200, 2 **(c)** ones **(d)** 55

Exercise 2F

3. **(a)** 231 **(b)** 917 **(c)** 549 **(d)** 826 **(e)** 473 **(f)** 733 **(g)** 304 **(h)** 230
4. **(a)** 300 + 60 + 5 **(b)** 200 + 40 + 8 **(c)** 800 + 20 + 7
(d) 900 + 80 + 0 **(e)** 400 + 0 + 5 **(f)** 300 + 10 + 9

Exercise 2G

1. **(b)** 115, One hundred fiftee **(c)** 119, One hundred nineteen
(d) 120, One hundred twenty **(e)** 148, One hundred forty-eight
(f) 188, One hundred eighty-eight **(g)** 201, Two hundred one
(h) 253, Two hundred fifty-three
2. **(a)** Three hundred three **(b)** Three hundred sixty-nine
(c) Three hundred ninety **(d)** Four hundred twenty-two
(e) Four hundred fifty-three **(f)** Four hundred sixty-five
(g) Five hundred seventy-four **(h)** Six hundred thirty-six

Exercise 2H

1. **(b)** > **(c)** > **(d)** > **(e)** < **(f)** >
(g) > **(h)** < **(i)** > **(j)** > **(k)** < **(l)** >
2. **(b)** 912 **(c)** 514
3. **(b)** 481 **(c)** 411

Exercise 2I

1. **(a)** 319, 328, 383, 391
(b) 143, 236, 615, 789
(c) 893, 898, 909, 915
2. **(a)** 177, 171, 135, 117
(b) 890, 612, 345, 154
(c) 860, 467, 460, 318

Chapter Test

1. **(a)** 759 **(b)** 905 **2.** **(a)** Eight hundred seventy-six
(b) Seven hundred ninety-nine. **3.** 1000 **4.** 779
5. 200+90+7 **6.** 438 **7.** 999 **8.** 100 **9.** **(a)** < **(b)** > **(c)** =
11. **(a)** 300 **(b)** 90 **(c)** 1000 **12.** 248, 348, 448, 548, 648, 748
13. (a) **14.** (b) **15.** (d) **16.** (b) **17.** (b)
18. **(a)** T **(b)** T **(c)** T **(d)** T **(e)** T

HOTS **1.** 270, 280 **2.** (c)

CHAPTER 3: ADDITION

Exercise 3A

1. 96 **2.** 89 **3.** 94 **4.** 93 **5.** 103 **6.** 102
7. 105 **8.** 121 **9.** 115 **10.** 138 **11.** 156 **12.** 141

Exercise 3B

1. 82 chocolates **2.** 93 passengers **3.** 80 pages
4. 94 eggs **5.** 57 fruits **6.** 106 marbles

Exercise 3C

2. **(a)** 567 **(b)** 685 **(c)** 679 **(d)** 799 **(e)** 767 **(f)** 596
(g) 818 **(h)** 450 **(i)** 819 **(j)** 975 **(k)** 767 **(l)** 919
(m) 576 **(n)** 883 **(o)** 977 **(p)** 788 **(q)** 997 **(r)** 999

Exercise 3D

1. 787 **2.** 355 **3.** 954 **4.** 324 **5.** 773 **6.** 398 **7.** 495
8. 797 **9.** 650 **10.** 652 **11.** 890 **12.** 862 **13.** 490 **14.** 884
15. 874 **16.** 875 **17.** 188 **18.** 697 **19.** 771 **20.** 586

Exercise 3E

1. **(b)** 400 **(c)** 904 **(d)** 840 **(e)** 967 **(f)** 831 **(g)** 902
(h) 872 **(i)** 486 **(j)** 916 **(k)** 637 **(l)** 870
2. **(b)** 677 **(c)** 682 **(d)** 932 **(e)** 932 **(f)** 922 **(g)** 700
(h) 903

Exercise 3F

1. 828 students **2.** 434 letters **3.** 318 keychains **4.** 971 fruits
5. 648 tickets, care and compassion for the mankind.

Chapter Test

1. (b) **2.** (a) **3.** (c) **4.** 89+46 = 135 **5.** 685 stamps **6.** 905 sea shells

HOTS **1.** 283 + 473 = 756 **2.** 329 + 475 = 804

CHAPTER 4: SUBTRACTION

Exercise 4A

2. **(a)** 312 **(b)** 222 **(c)** 232 **(d)** 133 **(e)** 201 **(f)** 551
(g) 412 **(h)** 217
3. **(a)** 110 **(b)** 721 **(c)** 11 **(d)** 480 **(e)** 404 **(f)** 306
(g) 600 **(h)** 41 **(i)** 315

Exercise 4B

1. 625 **2.** 239 **3.** 329 **4.** 509 **5.** 364 **6.** 639 **7.** 637 **8.** 318

Exercise 4C

1. **(a)** 178 **(b)** 289 **(c)** 479 **(d)** 480
2. **(a)** 287 **(b)** 508 **(c)** 259 **(d)** 289 **(e)** 278 **(f)** 351
(g) 224 **(h)** 789

Exercise 4D

1. 727 adults **2.** 106 chickens **3.** 75 pictures **4.** 382 km
5. 47 bottle caps **6.** 163 plants **7.** 104 marbles **8.** 146 pages
9. ₹435 **10.** 334 visitors in December

Exercise 4E

1. 88 oranges **2.** 792 cookies **3.** 277 people **4.** 458 bottles this year, 738 bottles in all **5.** 148 pieces of luggage

Chapter Test

1. **(a)** 146 **(b)** 670 **(c)** 157 **(d)** 27 **(e)** 115 **(f)** 365
2. 966 – 276 **3.** (c) **4.** (b) **5.** (c)

Worksheet

1	2	3	4	5
c	d	e	a	b

HOTS **1.** 652 and 256; sum = 908, difference = 396
2. 138 **3.** 52 ones **4.** d **5.** 221

QUICK REVIEW

1. Five hundred ninety-three
2. 879 **3.** 279; 200 + 70 + 9

CHAPTER 5: MULTIPLICATION

Exercise 5A

1. **(b)** 4 × 3 = 12 **(c)** 5 × 4 = 20 **(d)** 3 × 5 = 15
(e) 4 × 7 = 28 **(f)** 3 × 9 = 27 **(g)** 3 × 8 = 24
(h) 5 × 10 = 50
2. **(b)** 2 × 4 = 8 **(c)** 5 × 3 = 15 **(d)** 7 × 6 = 42
(e) 10 × 7 = 70 **(f)** 6 × 9 = 54 **(g)** 2 × 10 = 20
(h) 8 × 1 = 8 **(i)** 9 × 8 = 72

Exercise 5B

2. 2 × 9 = 18 **3.** 5 × 4 = 20 **4.** 10 × 2 = 20
5. 6 × 5 = 30, 3 × 10 = 30 **6.** 10 × 4 = 40, 5 × 8 = 40

Exercise 5C

1. 6 **2.** 1 **3.** 8 **4.** 9 **5.** 5 **6.** 7
7. 6 **8.** 1 **9.** 1 **10.** 0 **11.** 0 **12.** 0

Exercise 5D

5. 12 wings **6.** 8 toffees **7.** 20 ears

Exercise 5E

5. 27 pages **6.** 15 notebooks

Exercise 5F

5. 12 legs **6.** 32 erasers **7.** 6 triangles by 2 sides

Exercise 5G

5. 15 stars **7. (a)** 6 **(b)** 41 **(c)** 51

Exercise 5H

5. 76 legs **6.** 41, 23, 47 **7.** 39, 42, 45

Exercise 5I

6. 42 days **7. (a)** 7×6 **(b)** 3×7

Exercise 5J

5. 40 years **7.** $8 \times 8 = 64$

Exercise 5K

6. (a) < **(b)** > **(c)** =

Exercise 5L

5. (a) 0 **(b)** 90 **(c)** 40 **(d)** 3 **(e)** 80 **(f)** 68

6. 30 pencils **7.** 50 patients. Helping needy.

Exercise 5M

1. (b) 24 **(c)** 14 **(d)** 48 **(e)** 0 **(f)** 27 **(g)** 90 **(h)** 40 **(i)** 60 **(j)** 15 **(k)** 56 **(l)** 32 **(m)** 42 **(n)** 45 **(o)** 0

2. (a) 35 **(b)** 9×7 **(c)** 48 **(d)** 8×1 **(e)** 2×7 **(f)** 24

3. (a) 9 **(b)** 64 **(c)** 9 **(d)** 26

4. (a) 15 **(b)** 71 **(c)** 27 **(d)** 13

5. (a) 19, 20, 21, 22, 23 **(b)** 65, 66, 67, 68, 69, 70, 71

6. 'Multiply by 5'; 4, 20; 3, 15; 8, 40; 9, 45

Exercise 5N

1. 20 days **2.** 15 people **3.** 49 cherries **4.** 64 years

5. 50 people **6.** 32 wheels **7.** ₹56

Class Work

A. 1. + **2.** − **3.** × **4.** +, + **5.** − **6.** ×

B. 1. > **2.** < **3.** > **4.** = **5.** = **6.** =

Chapter Test

1. (a) – v **(b)** – iv **(c)** – i **(d)** – iii **(e)** – ii

2. (c) **3.** (b) and (c) **4.** (b) **5.** (b) **6.** (a) **7.** (b)

Mental Maths

1. nines **2.** 8 **3.** $36 = 4 \times 9$ **4.** 45, 40, 35, 30 **5.** 0 **6.** 81

HOTS 42

CHAPTER 6: MORE ON MULTIPLICATION

Exercise 6A

1. (a) 96 **(b)** 69 **(c)** 48 **(d)** 129 **(e)** 280 **(f)** 276 **(g)** 160 **(h)** 459

2. (a) 328 **(b)** 240 **(c)** 288 **(d)** 488 **(e)** 639 **(f)** 486 **(g)** 166 **(h)** 728

Exercise 6B

1. 486 **2.** 633 **3.** 888 **4.** 868 **5.** 442 **6.** 624 **7.** 639 **8.** 840

9. 0 **10.** 909 **11.** 880 **12.** 802

Exercise 6C

1. (b) 680 **(c)** 240 **(d)** 400 **(e)** 860 **(f)** 400 **(g)** 180 **(h)** 930 **(i)** 800 **2.**

8	80	800
9	90	900
700	720	1000

Exercise 6D

1. 174 **2.** 238 **3.** 64 **4.** 175 **5.** 98 **6.** 162 **7.** 405 **8.** 140

9. 280 **10.** 450 **11.** 152 **12.** 270

Exercise 6E

1. (a) 492 **(b)** 645 **(c)** 560 **(d)** 290

2. (a) 960 **(b)** 952 **(c)** 832 **(d)** 870 **(e)** 876 **(f)** 763 **(g)** 852 **(h)** 951

Exercise 6F

1. 896 seats **2.** 368 grams **3.** 225 scarves, helping the needy

4. 690 apples **5.** 850 rupees $(9 \times 50 + 4 \times 100)$

Chapter Test

1. (a) 249 **(b)** 672 **(c)** 600 **(d)** 378 **2.** 525 carrots

3. 210 **4.** 100 **5.** (d) **6.** (c) **7.** (c) **8.** (d)

HOTS ₹184

Model Test Paper – 1

1. (a) 704 **(b)** 700 + 0 + 4 **(c)** Seven hundred four

2. (a) 673 **(b)** 237 **3.** 214, 217, 220

4. 176 people **5.** 100 eggs **6.** (b) **7.** (d)

8. (c) **9.** (c) **10.** (b)

CHAPTER 7: DIVISION

Exercise 7A

2. 6 pineapples **3.** 3 crayons **4.** 5 pencils

5. 3 mangoes **6.** 2 children

Exercise 7B

1. 7 **2.** 2 **3.** 7 **4.** 5 **5.** 8 **6.** 7 **7.** 10 **8.** 3

9. 4 **10.** 9 **11.** 7 **12.** 8 **13.** 5 **14.** 1 **15.** 3

Exercise 7C

1. (a) 4, 2 **(b)** 7, 3 **(c)** 7, 4 **(d)** 7, 7

2. (a) 9, 2 **(b)** 8, 1 **(c)** 9, 8 **(d)** 9, 2 **(e)** 7, 2 **(f)** 7, 5 **(g)** 8, 3 **(h)** 6, 1

Exercise 7D

2. 5 cars **3.** 7 camels **4.** 9 oranges **5.** ₹9 **6.** 8 rows

7. 7 minutes **8.** 4 toffees, sharing

9. 4 children, 2 pencils left over

10. 9 books in each shelf, 5 left over

Mental Maths

1. 8 **2.** 5 **3.** 9 **4.** 40 **5.** 0 **6.** 17

Chapter Test

1. 5 marbles **2.** 6, 2

3. (a) 8 **(b)** 8 **(c)** 9 **(d)** 9 **(e)** 8 **(f)** 9 **4. (a)** Q = 9, R = 2 **(b)** Q = 8, R = 3 **(c)** Q = 7, R = 3 **5.** 5 weeks

HOTS **1. (a)** False (b) True **(c)** False

2. 63 **3.** 4 cookies

Quick Review

1. 63 **2.** 9 bottles **3.** 626

CHAPTER 8: EVEN AND ODD NUMBERS

Exercise 8

1. (b) even **(c)** odd **(d)** odd **(e)** even **(f)** even **(g)** even

HOTS **1.** 16 **2.** 17

CHAPTER 9: MEASUREMENT

Exercise 9A

2. metre **3. (a)** metres **(b)** centimetres **(c)** centimetres **(d)** metres **(e)** metres

4. (a) less **(b)** more **(c)** more **(d)** less **(e)** less

5. (a) cm **(b)** cm **(c)** m **(d)** m **(e)** cm

6. (a) 2 **(b)** 10 **(c)** 6

Exercise 9B

1. **(a)** Grams **(b)** Grams **(c)** Grams **(d)** Kilograms **(e)** Grams **(f)** Grams **(g)** Kilograms **(h)** Kilograms
2. **(a)** 50 g **(b)** 10 kg **(c)** 15 kg **(d)** 3 kg
3. **(a)** 101 kg **(b)** 35 kg **(c)** 290 grams **(d)** 13 kg **(e)** 165 grams

Exercise 9C

2. **(a)** g **(b)** mL **(c)** m **(d)** cm **(e)** kg **(f)** L
3. **(a)** 27 L **(b)** 56 L **(c)** 580 litres **(d)** 5 jugs **(e)** 325 mL

Chapter Test

1. **(a)** – ii **(b)** – v **(c)** – iv **(d)** – iii **(e)** – vi **(f)** – i
2. **(a)** g **(b)** mL **(c)** L **(d)** kg **(e)** m
3. (b) **4.** (a) **5.** (d) **6.** (d) **7.** (b)

CHAPTER 10: MONEY

Exercise 10A

1. **(a)** 15 rupees **(b)** 8 rupees **(c)** 25 rupees **(d)** 23 rupees **(e)** 105 rupees **(f)** 82 rupees

Exercise 10B

1. **(a)** ₹9.45 **(b)** ₹29.09 **(c)** ₹143.50 **(d)** ₹56.00 **(e)** ₹90.25
2. **(a)** Six rupees fifty paise **(b)** Fifteen rupees ninety paise **(c)** Fifty-five rupees seven paise **(d)** One hundred seventy-five rupees thirty-five paise

Exercise 10C

1. **(a)** ₹97.75 **(b)** ₹328.75 **(c)** ₹607.70
2. **(a)** ₹13.33 **(b)** ₹36.25 **(c)** ₹132.25 **3.** **(a)** ₹25 **(b)** ₹73 **(c)** ₹46 **(d)** ₹150.50, compassion and help **(e)** ₹87.50

Chapter Test

1. **(a)** ₹58.95 **(b)** ₹240.08
2. Three 20-rupee notes or One 50-rupee note and One 10-rupee note **3.** Yes, 6 × 8 = 48 **4.** ₹211.49 **5.** (c) **6.** (b)

HOTS ₹165 (₹ 45 + ₹ 70 + ₹ 50)

CHAPTER 11: TIME AND CALENDAR

Exercise 11C

1. **(a)** 7 days **(b)** Monday **(c)** Thursday **(d)** Wednesday **(e)** Sunday
2. **(b)** Saturday **(c)** Thursday **(d)** Monday **(e)** Tuesday **(f)** Sunday **(g)** Saturday **(h)** Thursday
3. **(b)** Tuesday **(c)** Sunday **(d)** Thursday

Exercise 11D

1. Saturday **2.** Thursday **3.** Thursday **4.** Thursday **5.** Saturday **6.** Tuesday

Exercise 11E

1. 12 **2.** February **3.** fourth **4.** July **5.** May **6.** November **7.** August **8.** October **9.** January **10.** June and August **11.** June, September, 30 **12.** 7 **13.** January, July **14.** 31 **15.** February, 28 or 29

Exercise 11F

1. Very cold **2.** Raincoat **3.** Cold things **4.** Vasanta **5.** Shishir **6.** Sharad **7.** Grishma

Chapter Test

2. **(a)** days **(b)** Friday **(c)** 366 **(d)** True **(e)** half past 9 **(f)** October **(g)** Summer
3. **(a)** December 26, 2015 **(b)** 5 **(c)** Thursday **(d)** Thursday **(e)** December 15, 2015

CHAPTER 12: GEOMETRY

Exercise 12A

1. **(b)** 1 vertical, 2 slanting **(c)** 1 vertical, 3 horizontal **(d)** 2 vertical, 2 slanting **(e)** 2 vertical, 1 horizontal **(f)** 2 slanting, 0 vertical **(g)** 2 horizontal, 1 vertical **(h)** 2 slanting, 0 vertical

Exercise 12B

2. cylinder **3.** cone **4.** sphere **5.** cone **6.** cube **7.** cuboid **8.** cylinder

Quick Review

1. Half past 12 or 12:30 **2.** ₹111.20 **3.** 10 mL

Chapter Test

1. **(a)** Square **(b)** Cube **(c)** Sphere **(d)** Circle
2. **(a)** – ii **(b)** – i **(c)** – iii
3. **(a)** Cone **(b)** 1 **(c)** 1
4. **(a)** face **(b)** edge **(c)** roll **(d)** dimensions, three

HOTS (b)

CHAPTER 13: FRACTIONS

Chapter Test

1. **(a)** One-half, $\frac{1}{2}$ **(b)** One-fourth, $\frac{1}{4}$ **(c)** One-third, $\frac{1}{3}$
3. (c) **4.** (d)

HOTS $\frac{1}{4}, \frac{1}{3}, \frac{1}{2}$

CHAPTER 14: PATTERNS

Exercise 14B

1. **(a)** 1, 4, 7, 10 **(b)** 12, 10, 8, 6
2. **(a)** 12, 15, 18 **(b)** 24, 29, 34 **(c)** 30, 35, 40 **(d)** 46, 53, 60 **(e)** 20, 15, 10 **(f)** 30, 20, 10 **(g)** 32, 64, 128 **(h)** 80, 160, 320 **3.** 16 **4.** 72
5. **(a)** 4, 7, 10, 13, 16, 19, 22
(b) 1, 3, 9, 27, 81
(c) 10, 20, 30, 40, 50, 60, 70
(d) 38, 35, 32, 29, 26, 23, 20, 17, 14
6. 100 cm

Chapter Test

1. **(a)** ◯ △ **(b)** ○ ◯
2. **(a)** 41, 46, 51 **(b)** 40, 37, 34 **(c)** 64, 128, 256 **(d)** 43, 32, 21
3. (d) **4.** (b)

HOTS 14 blocks

CHAPTER 15: DATA HANDLING

Exercise 15

2. **(a)** January, June, September **(b)** July **(c)** April, 1 **(d)** 5
3. **(a)** Dog **(b)** Mice **(c)** Rabbit

Model Test Paper – 2

1. 9 bottles **2.** No, he has ₹90 only **3.** cylinder **4.** 160 kg
5. **(a)** 4 **(b)** Monkey **(c)** 9
6. (c) **7.** (d) **8.** (d) **9.** (b) **10.** (a)