ENGLISH–4

SEMESTER

2

Contents

1. The Giving Tree

ANSWERS

WARM UP

A. Match the fruits with their names.

1. 

2. 

3. 

4. 

(a) Kiwi fruit (b) Cherimoya (c) Mangosteen (d) Grapefruit

B. Tick (✓) the things we get from trees.

rubber [✓] medicines [✓] petrol [ ] wood [✓] steel [ ]

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Who were good friends?

   (a) A tree and a boy [✓]

   (b) A tree and a bird [ ]

   (c) A boy and a dog [ ]

2. How did the boy earn money?

   (a) By selling mangoes [ ]

   (b) By selling wood [ ]

   (c) By selling apples [✓]

3. What did the boy want to keep himself warm?

   (a) A boat [ ] (b) A house [✓] (c) A blanket [ ]

B. Write True or False.

1. The tree felt sad when the boy went away. **True**

2. The tree gave gold coins to the boy when he needed money. **False**
3. The boy cut off the branches to build a house. **True**
4. In his old age, the boy was very happy. **False**

C. Answer these questions.

1. How did the little boy play with the tree?

Ans. The little boy used to play with the tree by climbing up her trunk and swinging from her branches. He would gather leaves and make them into crowns and play king of the forest.

2. Why did the boy want money?

Ans. The boy wanted money because he wanted to buy things and have fun.

3. How did the boy make the boat?

Ans. The boy made the boat by cutting down the trunk of the tree.

4. Why was the tree special?

Ans. The tree was special because it was always giving and did not want anything in return.

5. Is the title of the story 'The Giving Tree' right? Why?

Ans. The title of the story 'The Giving Tree' is right because the tree was always giving and did not ask for anything in return.

THINK AND ANSWER

D. Trees also grow old. How do we find the age of a tree?

Ans. We can find out the age of a tree but counting the number of rings in the stem.

GRAMMAR IS FUN

E. Complete the sentences with the simple future tense form of the verbs given in the box.

visit drive teach go

1. My friend has come from New York. He **will visit** different places in India.
2. The teacher **will teach** us about the solar system tomorrow.
3. I **will go** to market in the morning.
4. Deepak **will drive** to the airport to pick his uncle in the evening.

F. Fill in the blanks with am/is/are + going to with the verbs given in the box.

read launch take win

1. The students **are going to take** their exams from tomorrow.
2. I **am going to read** a book by Chetan Bhagat.

3. Nadal **is going to win** the Wimbledon Trophy this year.

4. The scientists **are going to launch** a new satellite in space very soon.

SPELL WELL

G. Tick (✓) the correct spellings.

1. garaden	☐	garden	✓	2. childern	☐	children	✓
3. beautiful	✓	beauteful	☐	4. greenry	☐	greenery	✓

WORD POWER

H. Cross the odd one out.

1. root	stem	leaf	~~skin~~
2. banyan	neem	~~sheep~~	eucalyptus
3. boat	~~helicopter~~	ship	steamer
4. tulip	~~plum~~	jasmine	marigold

LET'S LISTEN

I. Your teacher will read the riddles in the listening text or you can listen to them on the Digital Board. Listen to them carefully and answer them.

Ans. 1. Root 2. Leaf 3. Flower 4. Stem

WRITE WELL

M. Look at the picture and describe the scene.

Ans. There are three children. They are playing. One child is blindfolded. One child picking up mangoes which have fallen from the tree. There is greenery all around. All the children look happy.

ACTIVITY/PROJECT

N. Collect pictures of five trees. Take a chart paper and paste these pictures on it. Use crayons and glitter to decorate the collage.

Ans. Do it yourself.

2. Tom Sawyer's Toothache

ANSWERS

WARM UP

Write the answers to the following questions.

1. Have you ever had a toothache?

   _____

2. Was it severe or mild?

   _____

3. Have you ever been to a dentist?

   _____

4. Why do people go to a dentist?

   _____

Ans. Read the questions aloud and let each student write his/her own answers. Talk about oral hygiene and health.

READ AND UNDERSTAND

Write the answers to the following questions.

A. Tick (✓) the correct option.

1. Tom wished on Monday morning

(a) to go to school		(b) that he would be sick	✓
(c) to play with Sid all day long		(d) to keep on sleeping	

2. Sid told Aunt Polly that

(a) he was not feeling well		(b) Tom had a toothache	
(c) Tom was dying	✓	(d) Tom did not want to go to school	

B. Fill in the blanks with suitable words.

1. Tom felt **sick** on Monday **mornings**.
2. Tom pretended that he had a **sore** **toe**.
3. Sid was fast **asleep**, and snored on.
4. **Mary** got all the things that Aunt Polly told her to bring to extract Tom's tooth.

C. Match the following groups of words to form sentences.

Column A	Column B
1. Samuel L. Clemens wrote	(a) he had any ailment, but found none.
2. Tom Sawyer investigated if	(b) but Sid was asleep.
3. Tom groaned loudly	(c) ran upstairs to Tom.

4. Aunt Polly, Mary and Sid (d) under the pen name Mark Twain.

D. Answer the following questions.

1. What did Sid tell Aunt Polly when he went downstairs? How did she react?

Ans. Sid told Aunt Polly that Tom was dying. With a white face and trembling lips, Aunt Polly ran upstairs to Tom.

2. When did Tom feel a 'little foolish'? What had Aunt Polly told him to do?

Ans. Tom felt foolish when Aunt Polly laughed a little and then cried a little. When Aunt Polly told Tom to shut up and climb out of bed, he realised that she had caught him out in his lie. This made him feel very foolish.

3. What did Aunt Polly decide to do about Tom's tooth?

Ans. Aunt Polly decided to pull out Tom's tooth.

4. How did Aunt Polly help Tom get rid of his tooth?

Ans. She tied a silk thread in a loop around Tom's tooth and tied the other end of it to the bedpost. Then she suddenly thrust the chunk of fire almost into his face. This must have startled Tom into pulling back and before he realised it, his tooth was out and dangling at the end of the thread.

5. Answer with reference to the context.

Read the sentence given below and answer the questions that follow.

"What's the matter with you, child?"

1. Who said these words and to whom?

Ans. Aunt Polly said these words to Tom.

2. What was the reply to the question?

Ans. Tom told Aunt Polly that his sore toe was mortified.

3. Did the speaker of the above words believe what was told to her?

Ans. No, she did not believe what was told to her.

4. What sort of a boy was the 'child'?

Ans. The 'child' was naughty and he tried all that he could to avoid going to school.

THINK AND ANSWER

E. Do you think that Tom got into trouble because he told a lie? Discuss.

Ans. Yes, Tom told a couple of lies – that his toe was sore and that he had a toothache. He got into trouble because Aunt Polly caught the first lie and as for the loose tooth, she pulled it out.

GRAMMAR IS FUN

F. Write 'AM' for Adverbs of Manner, 'AT' for Adverbs of Time, 'AP' for Adverbs of Place for the following sentences.

1. He worked quietly. **AM**
2. The balloon moved upwards in the sky. **AP**
3. The knight faced the dragon bravely. **AM**
4. I wrote a poem yesterday. **AT**
5. Rohan is sitting here. **AP**

G. Circle the correct spellings.

1.	relationship	relationsheep	rilationship	relashunship
2.	determnation	deturmination	determination	ditermination.
3.	suroundings	seroundings	surrowdings	surroundings
4.	disabelity	disability	disabiliti	desability

WORD POWER

H. What is the difference in the meaning of the two words underlined in each pair of sentence?

1. (a) The kitten sat on top of the cupboard.

Ans. The word 'top' here means upper portion of the cupboard.

(b) Mukul was playing with a top.

Ans. The word 'top' here means a toy.

2. (a) Rose is a beautiful flower.

Ans. The word 'rose' here means a flower.

(b) He rose slowly from the chair.

Ans. The word 'rose' here means 'to get up'.

3. (a) This pillow is very light.

Ans. The word 'light' here means not heavy.

(b) Put on the light.

Ans. The word 'light' here means bulb or tubelight.

I. Select five words from the grid below and write them down in column A and their opposites in column B.

O	K	F	E	A	R	Z	T
R	D	Q	A	S	L	O	W
C	A	R	E	F	U	L	S
F	A	L	L	P	M	X	T
B	I	W	I	N	C	V	D

Words (Column A)	Opposites (Column B)
FEAR	FEARLESS
SLOW	QUICK
CAREFUL	CARELESS
FALL	RISE
WIN	LOSE

LET'S LISTEN

J. Your teacher will read the passage from the listening text about how Tom Sawyer painted the fence. You can also listen to it on the Digital Board. Now, in the blanks with suitable words.

Aunt Polly sent out **Tom** on **Saturday** morning to whitewash the **fence**. Tom tried to get **Jim** to whitewash the fence in exchange for a kind of **marble**. Aunt **Polly** chased Tim away. After some time, **Ben Rogers** walked by. Tom convinced him that whitewashing the fence was a pleasure. Ben gave Tom **an apple** in exchange for the work. During the day, every **one** who passed by, got to **paint** the fence. By the time the fence had three coats of paint, **Tom** had many miscellaneous treasures.

WRITE WELL

O. Look at the pictures and use the clues given below them to write a story. You may add your own details.

Arun was talking — his mother had a bad headache — helped her lie down — gave water and medicine — gave his mother head massage — felt better — headache vanished

Ans. Any reasonable answer is acceptable.

DICTIONARY SKILLS

P. Use a dictionary and find out the meanings of the underlined words in the given sentences. Write the meanings in the blanks.

1. The policeman found important evidence at the scene of theft.

Ans. One or more reasons why something is believed to be true or not.

2. Oral hygiene is important.

Ans. Relating to the mouth.

3. He got name and fame once he became a successful actor.

Ans. Recognition.

4. She regards her teacher as a guide.

Ans. To book up upon or think of with a particular feelings; considers.

5. Hundreds paid tribute to the soldiers who died in the war.

Ans. Something that is intended to show gratitude.

6. Mark Twain was a renowned writer.

Ans. Known or talked about by many people; famous.

7. Tom Sawyer tried to befool his aunt.

Ans. To make a fool of.

ACTIVITY/PROJECT

Q. Talk to your parents and find out important things to keep in mind for good oral hygiene.

Ans. Do it yourself.

R. Talk to you partner and discuss how to take proper care so that one never suffers from a toothache. Jot down three important points and share them with the class.

Ans. Do it yourself.

2. A Good Play (Poem)

ANSWERS

READ AND UNDERSTAND

A. Tick (✓) the correct option.

1. The poet built a ship with

(a) logs of wood	☐	(b) bars of steel	☐
(c) iron rods	☐	(d) back-bedroom chairs	✓

2. The poet and Tom actually sailed

(a) for months	☐	(b) for weeks	☐
(c) till tea	✓	(d) for a few days	☐

3. While sailing, Tom

(a) dived into the sea	☐	(b) fell out	✓
(c) controlled the ship	☐	(d) enjoyed himself throughout	☐

B. Fill in the blanks with suitable words and complete the following passage about the poem.

The poem reflects the wonderful **childhood** days when the poet and **Tom** built a **ship** with **back-bedroom chairs**. They also kept some **pillows** before they set out to sail. They carried **a saw** and **a saw some nails** too. They also took water in **the nursery pail**. Tom suggested that they should also take **an apple** and **a slice of cake**. All these things were enough for the **poet** and Tom. They imagined that they **were at sea** for many days. Unfortunately **Tom** fell out and **hurt his knee**. So, the poet was left alone in the **game** later.

C. Answer the following questions.

1. What are the three most essential things that the poet and Tom carried when they went sailing? Do you think that sailors can survive for days without those things?

Ans. The three things the poet and Tom carried were water, food and a saw and some nails.

2. Do you think that the poet and Tom really set out to sail in a ship or were they up to some kind of play? Which lines indicate this?

Ans. No, the poet and Tom had imagined a game of sailing on the sea. It can be seen from the following lines: 'We built a ship upon the stairs/All made of back-bedroom chairs'.

3. Mention two important things that you come to know about what the poet loved as a child.

Ans. We come to know that the poet loved having wonderful, imaginary adventures and he enjoyed the idea of sailing on the seas.

Tenaliraman and the Two Thieves

3

LESSON PLAN

SPECIFIC OBJECTIVES

- Learning that presence of mind enables one to overcome any problem
- Reading, listening and understanding the lesson
- Vocabulary: Words, meanings, spellings, pronunciation, providing missing letters to complete words, unjumble the words
- Grammar: Learning about different kinds of prepositions
- Learning to converse

3. Tenaliraman and the Two Thieves

ANSWERS

WARM UP

Solve these riddles.

1. What is found once in tea, twice in coffee but never in milk? **The letter 'e'.**
2. What is the colour of the peacock's egg? **The peacock does not lay eggs!**

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Where were the thieves hiding?

   (a) Behind the bushes [✓] (b) In the well [ ] (c) In the room [ ]

2. What did Tenaliraman tell his wife to do?

   (a) To run away [ ]

(b) To keep money and jewellery in a trunk ✓

(c) To go and ask help from the king ☐

3. What did the thieves find in the trunk?

(a) Jewels ☐ (b) Gold coins ☐ (c) Stones ✓

B. Fill in the blanks with the correct word from the box.

pretended sleep stones promised understood

1. Tenaliraman and his wife were about to **sleep**.
2. He **understood** that some thieves were planning to rob his house.
3. They **pretended** to go off to sleep.
4. The trunk had only big **stones** in it.
5. They **promised** never to steal again.

C. Answer these questions.

1. How did Tenaliraman come to know that there were thieves in the garden?

Ans. Tenaliraman came to know that there were thieves in the garden when he saw some movement behind the bushes.

2. What was Tenaliraman's plan?

Ans. Tenaliraman's plan was to throw a trunk full of big stones into the well and fool the thieves.

3. What activity did thieves keep on doing the whole night?

Ans. They kept on taking out water from the well the whole night.

4. Why were the thieves shocked?

Ans. The thieves were shocked when they found that the trunk they took out from well had only stones in it! They thought that they would find jewellery and money in it.

5. Why did Tenaliraman thank the thieves?

Ans. Tenaliraman thanked the thieves because they had taken out water from the well the whole night and this helped in watering the plants.

THINK AND ANSWER

D. If you see a thief hiding in your house, what would you do?

Ans. Do it yourself.

GRAMMAR IS FUN

E. Underline the prepositions in the sentences and mention whether they tell us about place, time, direction or indicate position.

1. She quietly walked into the room. **into (preposition of direction)**
2. I will meet you in the evening. **in (preposition of time)**
3. The principal went to class 5B. **to (preposition of direction)**

SPELL WELL

F. One letter is missing from each of these words. Write the correct letters in the blanks.

1. calend **a** r
2. neces **s** ary
3. dis **a** ppoint
4. tol **e** rate
5. exhibi **t** ion
6. rec **e** ived

WORD POWER

G. Unjumble the words to get meaningful words.

1. UOHSE **HOUSE**
2. RAGDEN **GARDEN**
3. RUNKT **TRUNK**
4. LSPEE **SLEEP**

LET'S LISTEN

H. Your teacher will read the limerick in the listening text or you can listen to it on the Digital Board. Listen carefully to it and answer the questions orally.

1. Who has a beard?

Ans. An old man.

2. Name two birds which have built their nests in the old man's beard.

Ans. Owl, hen.

3. Give a rhyming word for beard.

Ans. Feared.

WRITE WELL

L. Construct a story from the given outline.

An old woman becomes blind—calls a doctor—agrees to pay large fee if cured, but nothing if not—doctor comes daily—takes away valuable things—at last cures her—demands fees—the lady refuses saying cure is not complete—the doctor goes to the court—the judge asks lady why she will not pay—she says her eyes are not cured—cannot see all her valuable things—judge decides the case in her favour.

Ans. A old woman becomes blind. She calls a doctor. She agrees to pay him a large fee if cured but no money if she is not cured. The doctor is greedy. He delays the cure. Meanwhile, he takes away valuable things from the old woman's house every day. Finally, when the old woman is cured, she cannot see the valuable things in her house. She refuses to pay the doctor. The doctor goes to the court. The judge asks the woman why she is not paying the fee. The old woman tells the judge that her eyes are not cured because she cannot see her valuable things. The judge understands why she did not pay the fees. He decides the case in her favour.

ACTIVITY/PROJECT

M. Imagine you have found a hidden treasure.

Draw and colour it to show what the things in the treasure are. Discuss with your partner and make a list of any three ways in which you would use the treasure.

Ans. Do it yourself.

3. Rain in Summer (Poem)

ANSWERS

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. What is called beautiful by the poet?

(a) Dust		(b) Heat		(c) Rain	✓		

2. The 'fiery street' means it is _____ season.

(a) rainy		(b) winter		(c) summer	✓		

3. The rain clatters along the

(a) floors		(b) roofs	✓	(c) grasses			

B. Fill in the blanks with information from the poem.

1. The rain is beautiful after the dust and **heat**.
2. The rain falls in **narrow** lanes.
3. The falling of the rain produces a sound like the tramp of **hoofs**.
4. The rain falls across the window **pane**.

C. Answer these questions.

1. Why does the poet call rain beautiful?

Ans. The poet calls the rain beautiful because it is a beautiful sight to see rain coming after the heat and dust.

2. "How it ... struggles out ..."
   What does struggle out? Where does it struggle out from?

Ans. Rain. It struggles out from the spout.

ACTIVITY/PROJECT

D. Describe a rainy day in your own words.

Ans. One day as I was coming back from school, black clouds covered the sky. Soon it began to rain heavily. I ran and took shelter in a bus stand. Some distance away, I saw children sailing paperboats. They were sailing their boats in puddles of water. They were enjoying the rain very much.

PERIODIC TEST 3

READ AND ENJOY

A. Tick (✓) the correct answers.

1. What did the old man spill on the tablecloth?

(a) Broth	✓	(b) Soup		(c) Tea	

2. The old grandfather had to sit behind the

(a) table		(b) bed		(c) stove	✓

3. He was given food in an earthenware

(a) plate		(b) bowl	✓	(c) tray	

4. The son and his wife bought him a

(a) steel plate		(b) spoon		(c) wooden bowl	✓

5. What fell from grandfather's hand and broke?

(a) Clay pot		(b) Earthenware bowl	✓	(c) Glass jar	

B. Answer these questions.

1. What happened to the man when he grew old?

Ans. When the man became old, his eyes became dim, ears became dull of hearing and knees trembled.

2. What did his son and his son's wife feel?

Ans. The old man's son and the wife of the son felt disgusted at his habits.

3. Why did the old man look towards the table with tears in his eyes?

Ans. The old man was deeply hurt and pained at the behaviour of his son and daughter-in-law.

4. What was the grandson making and why?

Ans. The grandson was making a wooden trough for his parents to be used when they will be old.

5. Why did the man and his wife look at each other and then cry?

Ans. The father and mother could immediately understand their fault and the impression they were leaving on the mind of their child. Thinking of their own situation when they will be old, they began to cry.

WRITE WELL

C. Make a list of ten useful things we get from trees.

Ans. Do it yourself.

GRAMMAR IS FUN

D. Underline the abstract nouns in the following sentences.

1. The girl was praised for her honesty and bravery.
2. Ravi was filled with joy when he saw his marks in the class test.
3. He fought the mighty lion with courage.
4. He fainted because of weakness.

E. Complete the sentences with the simple future tense form of the verbs given in the brackets.

1. The teacher **will teach** us about the solar system tomorrow. (teach)
2. Deepak **will go** to the airport to pick up his friend in the evening. (go)

F. Underline the verbs in the sentences. Write whether the verbs are transitive or intransitive.

1. Mini sings beautifully. **Intransitive**
2. The man is selling balloons. **Transitive**

G. Write 'AM' for Adverbs of Manner and 'AP' for Adverbs of Place for the following sentences.

1. He worked quietly. **AM**
2. Rohan is sitting here. **AP**

LITERATURE

H. Answer the following questions.

1. Why did Avik have to take the three punishments?

Ans. Avik had to take the three punishments because of his greed.

2. Why was Air unable to keep itself clean?

Ans. Air was unable to keep itself clean and was full of pollution because people had cut the trees that kept it clean.

3. How did Tenaliraman come to know that there were thieves in the garden?

Ans. Tenaliraman came to know that there were thieves in the garden because he saw some movement behind the bushes.

4. How did the little boy play with the tree?

Ans. The little boy would gather the tree's leaves and make them into crowns and play king of the forest. He would climb up her trunk and swing from her branches and when he was tired, he would rest in her shade.

5. How did Aunt Polly help Tom get rid of his tooth?

Ans. She tied a silk thread in a loop around Tom's tooth and tied the other end of it to the bedpost. Then she suddenly thrust the chunk of fire almost into his face. This must have startled Tom into pulling back and before he realised it, his tooth was out and dangling at the end of the thread.

4. The Boy Who Borrowed

ANSWERS

WARM UP

Match the persons with the places they work in.

Persons	Places
1. Librarian	(a) Workshop
2. Researcher	(b) Hotel
3. Curator	(c) Laboratory
4. Mechanic	(d) Library
5. Chef	(e) Museum

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Benny loved
   - (a) reading ✓
   - (b) fighting
   - (c) playing
2. Benny got books only
   - (a) on his birthday
   - (b) at Christmas time ✓
   - (c) when he demanded them
3. Benny had the habit of
   - (a) borrowing things ✓
   - (b) stealing things
   - (c) lending things
4. Benny had borrowed two nature books from
   - (a) John ✓
   - (b) Bill
   - (c) Mary
5. All the borrowed books
   - (a) went to a library
   - (b) stayed with Benny
   - (c) returned to their owners ✓
6. Benny borrowed
   - (a) only books

(b) things like pen, rubber, etc. ✓

(c) money

B. Fill in the blanks by choosing the right words from the box.

handed dishonest empty temper sorry funny

1. Benny was the most **dishonest** little boy!
2. Benny had such a **funny** dream last night.
3. The books he had borrowed had gone off in a **temper**.
4. Benny found his bookshelves quite **empty** except for his own books!
5. Benny **handed** the things back to the other children.
6. Benny was **sorry** for keeping things of children for so long.

C. Answer these questions.

1. What was Benny fond of?

Ans. Benny was fond of reading books.

2. Why did Benny borrow books?

Ans. He borrowed books because he had not enough money to buy a lot of books and no one gifted him any except at Christmas time.

3. How did Benny become dishonest?

Ans. Benny became dishonest because once his bookcase began filling up, he could not bear to give away any of the books.

4. Why were the children angry with Benny?

Ans. The children were angry with him because he didn't give back any of the things he took from them.

5. How did the books and the things that Benny borrowed return to their respective owners?

Ans. The books pushed the door open. They went downstairs and went out of the open window and returned to their respective owners.

6. What lesson did Benny learn in the end?

Ans. He learnt that borrowing is a bad habit. If one borrows a thing, one should return it on time.

THINK AND ANSWER

D. You borrow a book from the school library and when you come home, you find that some pages are missing from the book. What would you do?

Ans. Hint: Report to the librarian.

GRAMMAR IS FUN

E. Tick (✓) the correct options in these sentences according to the hints given in the brackets.

1. Shall✓/will we go on a picnic on Monday? (suggestion)
2. Mini may/can✓ sing very well. (ability)
3. You must✓/may go now. (obligation)
4. Could✓/Can you do me a favour? (very polite)
5. You should✓/shall drink a lot of water in summer. (suggestion)
6. We should/ought✓ to respect our teachers. (obligation)

SPELL WELL

F. Tick (✓) the correct spellings.

1. Benny (borowed/borrowed✓) books from the library.
2. It was something (peculair/peculiar✓).
3. Benny sat down (suddenly✓/suddnly).
4. Benny was so (frigtened/frightened✓) that he didn't know what to do.
5. Benny had a queer (dreem/dream✓).

WORD POWER

G. Match the description of the book with its name.

Description	Books
1. A book containing maps	(a) Encyclopaedia
2. A book containing words and their meanings	(b) Almanac
3. A book giving information about all areas of knowledge or about different areas of one particular subject	(c) Atlas
4. A book that is published every year giving information about a particular subject or activity	(d) Dictionary

LET'S LISTEN

H. Your teacher will read the questions from the listening text or you can listen to them on the Digital Board. Listen to them carefully and answer them.

1. **Jawaharlal Nehru**
2. **Mahatma Gandhi**
3. **Rabindranath Tagore**
4. **Charles Dickens**

5. **R.K. Narayan**
6. **J.K. Rowling**

WRITE WELL

K. Imagine that you are a book. What do you feel when someone tears your pages or defaces you? Write a short paragraph on the way people should handle you.

Ans. Do it yourself.

DICTIONARY SKILLS

L. Refer to the dictionary and find out the meanings of the following words.

1. **treat:** Behave towards or deal within a certain way.
2. **trembling:** Shaking.
3. **queer:** Strange.
4. **jostling:** Pushing, elbowing or bumping against (someone) roughly.

ACTIVITY/PROJECT

M. Collect pictures of Enid Blyton, J.K. Rowling, R.K. Narayan and Roald Dahl and paste them in your scrapbook.

Ans. Do it yourself.

4. Thanks to My Family (Poem)

ANSWERS

READ AND UNDERSTAND

A. Write a short paragraph on 'My Family'.

Ans. There are six members in my family. They are—grandfather, grandmother, father, mother, myself and my sister. My sister and I play with grandfather and grandmother every day and grandmother tells us stories every night. We all help each other. We are a happy family. I love my family.

ACTIVITY/PROJECT

B. Paste a photograph of your family in the given space.

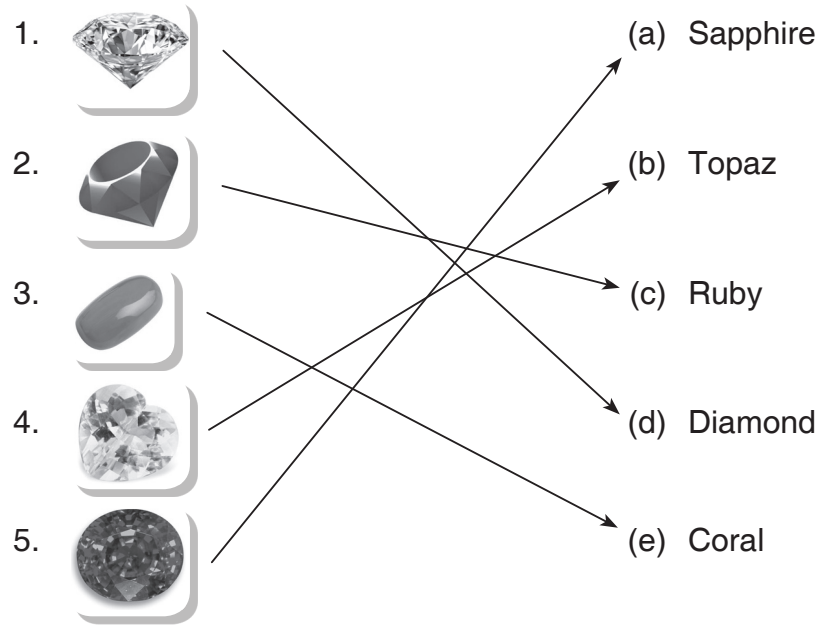
Ans.

5. Ali Baba and Forty Thieves

ANSWERS

WARM UP

Match the pictures of precious stones with their names.



READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Who was cutting trees in the forest?

(a) Qasim		(b) The robbers		(c) Ali Baba	✓

2. Who first saw the robbers enter the cave?

(a) Qasim		(b) Marjina		(c) Ali Baba	✓

3. Who was greedy?

(a) Qasim	✓	(b) Marjina		(c) Ali Baba	

4. Who forgot the word to open the cave?

(a) Qasim	✓	(b) Qasim's wife		(c) Marjina	

B. Complete the table with information from the text.

Characters	Activities
1. Ali Baba	One day, Ali Baba was cutting trees. He saw robbers coming. He hid behind a bush. He saw the robbers going into a cave. After they went away, Ali Baba went inside the cave. He filled his pockets with jewels and gold coins.
2. Qasim	Qasim went to Ali Baba's house. Ali Baba told him where he had got the gold. Qasim went to the cave. He filled his bags with gold and jewels. In his excitement, he forgot the word which helped to open the cave. The robbers came and killed him.
3. Qasim's wife	When Ali Baba returned the pair of scales he had borrowed from Qasim to weigh the gold he had found in the cave, Qasim's wife noticed a gold coin stuck at the bottom of the scales. She told her husband to find out from where his brother has got so much gold.
4. Marjina	When Marjina saw that the leader of the robbers had put a cross on Ali Baba's door, she put a cross on the door of every house of the street. When the robbers came back at night, to look for Ali Baba's house, they saw crosses on all the doors. They were confused. At night, Marjina needed oil to light the lamps. She went to the courtyard. She lifted the lid of a jar. She heard someone whispering. She knew that the men had come to harm Ali Baba. She poured hot oil into all the jars. All the robbers died.
5. The leader of the robbers	When he found Qasim in the cave, he ordered his robbers to kill Qasim. When the robbers had located Ali Baba's house, he put a cross on the door of the house. The leader went to the tailor and gave him a gold coin and asked him to take him to Ali Baba's house. He went to Ali Baba's house with big jars. The robbers hid in the jars. But Marjina ensure that the plants ended in failure.

C. Answer these questions.

1. Who do you think is the wisest of all the characters in the play? Why?

Ans. Marjina. She, by her presence of mind, was able to kill the robbers and saved Ali Baba's life twice.

2. Why did the robbers put a cross on Ali Baba's house?

Ans. They put a cross on Ali Baba's house so that they could identify the house when they came there next time.

3. Ali Baba knew the secret. What was the secret?

Ans. Ali Baba knew the secret that the robbers were hiding the looted treasure in a cave. He knew the magic word to enter the cave.

4. How did Marjina come to know that there were thieves in the jars?

Ans. Marjina wanted some oil to light the lamps. So, she went to courtyard to get it. As she lifted the lid of a jar, she heard someone whispering. Thus, she came to know that there were thieves in the jar.

THINK AND ANSWER

D. What qualities of Marjina do you like the most? Why?

Ans. Marjina's qualities that we like the most are her loyalty towards her master, her presence of mind and her courage.

GRAMMAR IS FUN

E. Fill in the blanks with suitable interjections. Clues are given in the brackets.

1. **Bingo!** I have found my favourite book. (discovery)
2. **Bravo!** your result is great. (joy)
3. **Ouch!** that really hurt. (pain)
4. **Hey!** where have you been all these days? (calling someone)
5. **Alas!** I've lost the match. (sorrow)

SPELL WELL

F. Fill in bb, rr or dd to complete these words.

1. o **d** **d**
2. ra **b** **b** it
3. cu **r** **r** y
4. pa **r** **r** ot
5. a **d** **d** ress
6. co **b** **b** ler

WORD POWER

G. Fill in the blanks using appropriate words from the brackets.

1. As bold as a **lion**. (tiger/lion)
2. As black as **coal**. (polish/coal)
3. As white as **snow**. (snow/cow)
4. As proud as a **peacock**. (pigeon/peacock)
5. As sweet as **honey**. (sugar/honey)

H. Choose the correct letters from the brackets and fill in the blanks to form complete words.

1. The seats of this sofa are very comfort**able**. (ible, able)
2. This book is not suit**able** for small children. (ible, able)
3. The movie was really horr**ible**! (able, ible)

4. The Qutub Minar is vis**ible** from far away. (able, ible)
5. We need a depend**able** government. (ible, able)

LET'S LISTEN

I. Your teacher will read the passage from the listening text or you can listen to it on the Digital Board. Listen to it carefully and answer the questions orally.

1. What was the full name of R.L. Stevenson?

Ans. Robert Louis Stevenson.

2. Name two famous works of R.L. Stevenson.

Ans. (a) Treasure Island (b) Kidnapped

3. Name two short story collections of R.L. Stevenson.

Ans. (a) New Arabian Nights (b) The Merry Men.

WRITE WELL

M. Imagine you are Qasim. You get trapped in the cave. What feelings come to your mind? Write five lines on your feelings.

Ans. Do it yourself.

DICTIONARY SKILLS

N. Refer to the dictionary and find out the meanings of the following words.

1. galloping

Ans. To run rapidly, especially in the case of a horse.

2. loot

Ans. Stolen goods or treasure.

3. doubted

Ans. Felt uncertain about

4. shelter

Ans. A place that offers protection or refuge from weather or danger.

ACTIVITY/PROJECT

O. Imagine that you are Ali Baba. Make a Thank You card for Marjina for being so helpful. Decorate it with beads, sparklers, etc.

Ans. Do it yourself.

LIFE SKILLS 2

A. Learn this poem and follow its message.

Be Careful

Be careful of your thoughts
For your thoughts become your words.
Be careful of your words
For your words become your actions.
Be careful of your actions
For your actions become your habits.
Be careful of your habits
For your habits become your character.
Be careful of your character
For your character becomes your destiny.

Ans. Do it yourself.

B. Is this me? Evaluate yourself by writing Yes or No.

1. Whenever the teacher praises another child, I feel she thinks that I am not good enough. _____
2. The only time I feel I am good is when someone praises me. _____
3. When the teacher points out another child's mistakes, I feel great. _____
4. When my friend gets more marks than me, I feel I have failed. _____
5. When the teacher gives a star for my friend's work and not for mine, I feel that my work is terrible. _____
6. I don't like it when my friend wins prizes for painting. _____
7. If I don't win a prize in a competition, I am so upset that I don't want to participate ever again. _____
8. I spend my time doing things I can do well. _____

Ans. Do it yourself.

C. Tiny drops of water make the mighty ocean. In the same way, small deeds make a big difference. Do you make a big difference in small ways every day? Check it out. Remember to be honest with yourself!

1. After eating a meal, I
   - get up and wash my hands.
   - put my plate and glass away.
   - cover any leftover food.

2. When my mother is ill, I
   - make sure that she gets some extra rest.
   - expect her to do all the things she normally does.
   - remind her to take her medicine.
   - leave the jobs for her to make up when she gets well.
3. After using the bathroom, I
   - leave it as it is.
   - make sure it is dry.
   - switch off the light.
   - turn off the taps.
   - leave dirty clothes all over.

Ans. Do it yourself.

MODEL TEST PAPER

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. What did Rajni find in the forest?

(a) A lion		(b) A snake		(c) A pool	✓

2. When would the stream become a gushing torrent?

(a) During the monsoon	✓	(b) In the summer		(c) In the winter	

3. What could Rajni see at the bottom of the pool?

(a) Fish		(b) Pebbles	✓	(c) Frogs	

4. Rajni had lived in the middle of the _____ desert.

(a) Sahara		(b) Rajputana		(c) Thar	✓

5. He often went to the pool for a swim with his

(a) friends	✓	(b) parents		(c) brother	

B. Find the meanings of the following words.

1. translucent **semi-transparent**
2. cascade **pouring downwards**
3. torrent **strong, fast-moving water**
4. wallow **roll or lie on mud**
5. thirsty **feeling the need to drink**

WRITE WELL

C. Make sentences with the following words.

1. Humble: _____
2. Secret: _____
3. Treasure: _____
4. Grateful: _____
5. Special: _____

Ans. Do it yourself.

D. Imagine you are Halim. Write five sentences about how you felt when Mulla Nasruddin told other people about his jacket which you were wearing.

Ans. Do it yourself.

GRAMMAR IS FUN

E. Tick (✓) the correct personal pronoun in each sentence.

1. Have you✓/your got your eyes checked?
2. The ball hit me✓/I on the head.
3. She✓/Her gave the book to me.
4. I/We✓ are going to a picnic on Sunday.

F. Underline the prepositions in the sentences and mention whether they tell us about place, time, direction or indicate position.

1. She quietly walked into the room. into, **Preposition of Direction**
2. I will meet you in the evening. in, **Preposition of Time**
3. The Principal went to Class 4-B. to, **Preposition of Direction**

G. Underline the adjectives of quality given in the following sentences.

1. The man wore a long coat.
2. Mini's hair is curly.
3. Roma wore new shoes to the party.

H. Circle the auxiliary verbs and underline the main verbs in the following sentences.

1. She (has) gone out.
2. Mohan (is) riding a bicycle.

I. Fill in the blanks with am/is/are + going to with the verbs given in the box.

read launch take

1. The students **are going to take** their exams from tomorrow.
2. I **am going to read** a book by Chetan Bhagat.

3. The scientists **are going to launch** a new satellite into space soon.

J. Tick (✓) the correct options in these sentences according to the hints given in the brackets.

1. Shall✓/Will we go on a picnic on Monday? (suggestion)
2. Mini may/can✓ sing very well. (ability)

K. Fill in the blanks with suitable interjections. Clues are given in the brackets.

1. **Bingo!** I have found my favourite book. (discovery)
2. **Bravo!** your result is great. (joy)

LITERATURE

L. Answer the following questions.

1. Who asked the King to get the treasure?

Ans. The Queen asked the King to get the treasure.

2. How did the king award the man who saved his life?

Ans. The king awarded the man by making him a minister.

3. What was Tenaliraman's plan?

Ans. Tenaliraman's plan was to throw a trunk full of big stones into the well and fool the thieves.

4. What was Benny fond of?

Ans. Benny was fond of reading books.

5. How did the boy make the boat?

Ans. The boy made the boat by cutting down the trunk of the tree.

GRAMMAR WORKSHEETS

GRAMMAR WORKSHEET 1

The Giving Tree

The Simple Future Tense

A. Fill in the blanks with future form of verbs given in the brackets.

1. We **will visit** the science museum on Sunday. (visit)
2. He **will meet** the doctor at his clinic. (meet)
3. The lunch break **will begin** at 1 p.m. (begin)
4. My father **will go** to a hospital tomorrow. (go)
5. Satish **will drive** to the railway station to pick up his aunt. (drive)
6. Prakash **will return** soon from college. (return)
7. Tejas **will turn** twelve next month. (turn)
8. They **will learn** French for one more year. (learn)

9. I **will watch** the new movie tomorrow. (watch)
10. She **will write** a letter to her friend in the morning. (write)

B. Complete the sentences using 'am'/'is'/'are' and 'going to' with suitable verbs to fill in the blanks. One has been done for you.

inaugurate vote sing invent become revise cut start visit

1. Mini is going to cut her birthday cake at 7 p.m.
2. I **am going to visit** Singapore next month.
3. The Chief Minister **is going to inaugurate** the hospital today.
4. The inventor **is going to invent** a new gadget soon.
5. Shalini **is going to revise** English Worksheets.
6. The students **are going to sing** the national anthem.

7. I **am going to start** a Cleanliness Club in our colony.
8. Who **is going to become** the President of the Club?
9. All the people **are going to vote** in this election.

GRAMMAR WORKSHEET 2

Tom Sawyer's Toothache

Kinds of Adverbs

A. Fill in the blanks with appropriate adverbs of manner from the box.

softly quickly brightly easily bravely

1. Saina won the match **easily**.
2. Please speak **softly** in the library.
3. The soldier fought **bravely**.
4. Sumit ate the food **quickly**.
5. The stars twinkled **brightly** in the sky.

B. Tick (✓) the correct adverbs of time within the brackets.

1. Rahul will come to my house (yesterday/today✓).
2. We are leaving the country (already/soon✓).
3. He woke up (early✓/then) in the morning.
4. The sun is rising (now✓/then).
5. (Yesterday✓/Tomorrow) a famous player visited our school.

C. Fill in the blanks with the correct adverbs of place from the box.

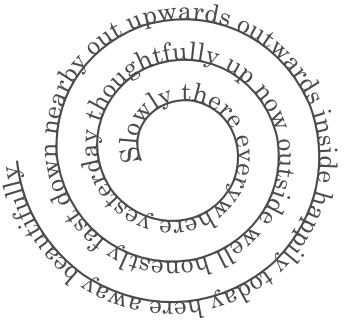
everywhere behind there near outside

1. My house is **near** the museum.
2. Ashwin is playing **outside**.
3. **Everywhere** I look, I find trees and hills.
4. The child hid **behind** the sofa.
5. Nisha will sleep **there**.

D. Add suitable adverbs with the help of the given clues and complete the following sentences. One is done for you.

1. The little girl was dressed **beautifully**. (how)
2. We played chess **yesterday**. (when)
3. There was much traffic on the road. The old man crossed it **slowly**. (how)
4. My parents have gone **away**. (where)
5. We **often** watch horror movies. (how often)
6. Don't worry! Reeta is a trained singer. She sings **beautifully**. (how)
7. He refuses to carry out my instructions **correctly**. (how)

E. Some adverbs are given in the word spiral. Write them in the proper boxes.



Adverbs of Manner	Adverbs of Time	Adverbs of Place
beautifully	today	away
happily	now	here
fast	yesterday	inside
honestly		outwards
well		upwards
thoughtfully		out
slowly		nearby
		down
		outside
		up
		everywhere
		there

GRAMMAR WORKSHEET 3

Tenaliraman and the Two Thieves

Prepositions

A. Fill in the blanks with suitable prepositions.

since over for at on in since to out of under off for from

1. The cat is sitting **on** the table.
2. The train went **off** the track.
3. The frog jumped **into** the pond.
4. She has been talking on the phone **for** an hour.
5. The river is flowing **under** the bridge.
6. The thief was taken **to** the jail.
7. Raja brought gifts **for** the children.
8. The lion was taken **out of** the cage.
9. I came **from** the market long back.
10. The aeroplane flew **over** my head.
11. Mahatma Gandhi was born **at** Porbandar **in** Gujarat.
12. She has been sleeping **since** seven o'clock in the evening.

B. Fill in the blanks with appropriate prepositions of time and place from the brackets.

1. Kush was born **in** Gurgaon **in** Haryana. (at, in)
2. The children have been playing **since** morning. (for, since)
3. She has been talking on the phone **for** an hour. (for, at)
4. The taxi will reach the airport **at** 8 a.m. to pick you up. (at, since)
5. Emperor Akbar lived **in** a big palace. (at, in)

C. Ask your grandmother/grandfather the following questions and use the prepositions given in the brackets to write the answers.

1. Where did you live during your school days?
   (at) _____
2. When did you pass out from school?
   (in) _____
3. Where would you like to go on a holiday?
   (to) _____

Ans. Do it yourself.

GRAMMAR WORKSHEET 4

The Boy Who Borrowed

Modals

A. Fill in the blanks with suitable modals.

1. We **ought to** be kind to animals. (ought to/can)
2. The questions are very easy. I **can** solve them in five minutes. (can/might)
3. **May** success be yours. (May/Might)
4. You **must** reach the examination hall well in time. (must/may)
5. I did everything I **could** but the tap kept on leaking. (might/could)
6. **Would** you please wait for just a moment? (Would/Must)
7. You **must** speak the truth at all times. (may/must)
8. Rashi loves to argue. She **should** have been a lawyer. (should/could)
9. We **ought to** help the poor and the needy. (ought to/might)
10. Maya **can** drive a car, though she is only fourteen years old. (can/could)
11. Does she **need** to go to Patna today? (need/need not)
12. **May** I go with you to church on Sunday? (May/Might)
13. **May** I go with you to church on Sunday? (May/Might)
14. I did everything I **could** but the tap kept on leaking. (might/could)
15. Trespassers **will** be prosecuted. (would/will)
16. We ran as fast as we **could**. (can/could)

B. Fill in the blanks using appropriate modal verbs to complete the following sentences.

1. The pudding is delicious. **May** I have some more?
2. If she apologises, the Principal **might** forgive her, but I am not sure.
3. I don't like these trousers. **May** I try the other pair instead?
4. Neena **might** not be my close friend but I greatly trust her.
5. **May** I use your phone? I have an urgent call to make.
6. **May** I borrow your pen to sign this agreement?
7. I am sorry, I **cannot/could not** speak to your boss about your promotion.
8. Thanks for inviting me to inaugurate your new office, but **may** I bring my wife along with me as I **cannot** afford to leave her alone?

GRAMMAR WORKSHEET 5

Ali Baba and Forty Thieves

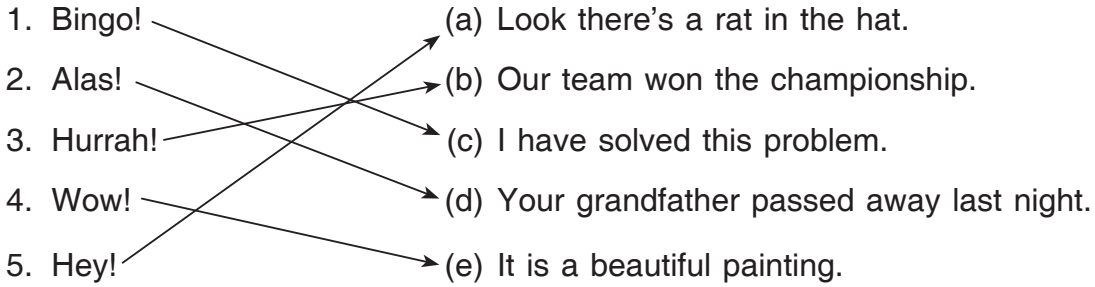
Interjections and Exclamations

A. Fill in the blanks with interjections from the box.

Wow! Ouch! Bravo! Oh! Hi! Hey! Alas!

1. **Alas!** I have lost may pen.
2. **Hurrah!** We won the match.
3. **Wow!** What a beautiful dress.
4. **Ouch!** A nail pierced my foot.
5. **Hi!** I am glad to meet you.
6. The teacher said, "**Bravo!** You have done well, in your exam, Mohit."
7. **Hey!** What a surprise to see you here.

B. Match suitable interjections with the correct group of words.



C. Use exclamatory sentences suitable for the following occasions.

1. When you wish to appreciate someone's dress.

   Wow! That is a very pretty dress.

2. To express your dislike for some dish.

   Ugh! I don't like this dish.

3. To appreciate someone's courage.

   What courage the soldier displayed!

4. To express your disapproval of someone's behaviour.

   Oh! That's disgusting!

5. To express how much you enjoyed the evening.

   We really had a wonderful time tonight!

D. Complete these exclamatory sentences with suitable words from the box.

tomorrow soup beautifully careful hot sad lost
game bee foolish immediately secret

1. This **soup** is too hot! I can't eat it.
2. You sang **beautifully** today!
3. Don't look so **sad**!
4. A **bee** just stung me!
5. Be **careful** with that knife!
6. How **hot** it is today!
7. Rajni has **lost** her watch again!
8. What an exciting **game** that was!
9. Granny is coming **tomorrow**!
10. Come out **immediately** of that cupboard!
11. Don't tell anybody. It is a **secret**!
12. What a **foolish** thing to say!

MATHEMATICS – 4

SEMESTER

2

Contents

1. Fractions

ANSWERS

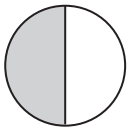
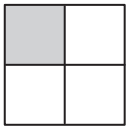
LET US RECALL

A. Divide each shape into the given equal parts and shade one part in each shape.

1. 2 equal parts **2.** 4 equal parts **3.** 5 equal parts

Now, write the fractions for the shaded and unshaded parts in each case.

When something is divided into equal parts, each part is called a **fraction** of the whole.

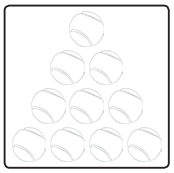
Ans. 1. $\frac{1}{2}$  $\frac{1}{2}$ **2.** $\frac{1}{4}$  $\frac{3}{4}$ **3.** $\frac{1}{5}$  $\frac{4}{5}$

B. Identify the numerator and the denominator in the following.

1. $\frac{3}{4}$ **2.** $\frac{2}{3}$ **3.** $\frac{4}{7}$ **4.** $\frac{5}{12}$ **5.** $\frac{8}{15}$

Ans. 1. $\frac{3}{4}$ —Nr —Dr **2.** $\frac{2}{3}$ —Nr —Dr **3.** $\frac{4}{7}$ —Nr —Dr **4.** $\frac{5}{12}$ —Nr —Dr **5.** $\frac{8}{15}$ —Nr —Dr

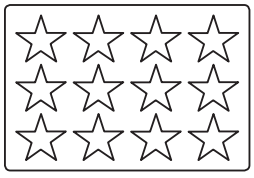
C. Colour the part of the collections as directed.

1. 

$\frac{1}{2}$ of the 10 balls in red

$\frac{1}{5}$ of the 10 balls in yellow

Remaining part of the balls in green

2. 

$\frac{1}{3}$ of the 12 stars in blue

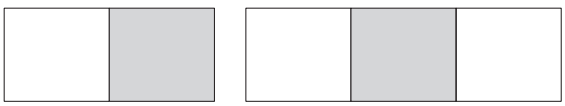
$\frac{1}{4}$ of the 12 stars in pink

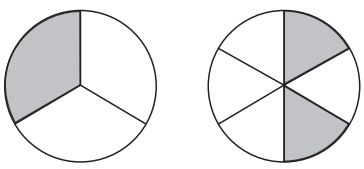
Remaining part of the stars in grey

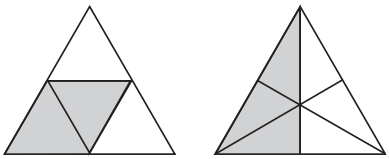
Ans. 1. 5 balls + 2 balls + 3 balls **2.** 4 stars + 3 stars + 5 stars

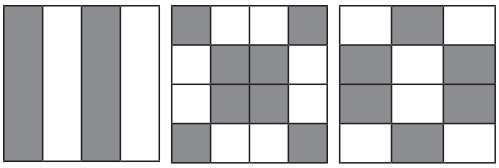
EXERCISE 1.1

A. Write the fractions to show the shaded portions in each set. Are they equivalent?

1. 

2. 

3. 

4. 

Ans. 1. $\frac{1}{2}$ and $\frac{1}{3}$; No **2.** $\frac{1}{3}$ and $\frac{2}{6}$; Yes

3. $\frac{2}{4}$ and $\frac{3}{6}$; Yes **4.** $\frac{2}{4}, \frac{8}{16}$ and $\frac{6}{12}$; Yes

B. Write the next three equivalent fractions for each of the following:

1. $\frac{1}{3}, \frac{2}{6}, \frac{3}{9}$ **2.** $\frac{1}{4}, \frac{2}{8}, \frac{3}{12}$

Ans. 1. $\frac{4}{12}, \frac{5}{15}, \frac{6}{18}$ **2.** $\frac{4}{16}, \frac{5}{20}, \frac{6}{24}$

C. Write 5 equivalent fractions for each of the following.

1. $\frac{2}{3}$ **2.** $\frac{2}{7}$

Ans. 1. $\frac{4}{6}, \frac{6}{9}, \frac{8}{12}, \frac{10}{15}, \frac{12}{18}$ **2.** $\frac{4}{14}, \frac{6}{21}, \frac{8}{28}, \frac{10}{35}, \frac{12}{42}$

D. Find an equivalent fraction of

1. $\frac{9}{27}$ with numerator 3. **2.** $\frac{21}{77}$ with numerator 3.

3. $\frac{8}{12}$ with denominator 6. **4.** $\frac{16}{20}$ with denominator 5.

Ans. 1. $\frac{3}{9}$ **2.** $\frac{3}{11}$ **3.** $\frac{4}{6}$ **4.** $\frac{4}{5}$

E. Find an equivalent fraction of

1. $\frac{3}{5}$ with numerator 15. **2.** $\frac{4}{9}$ with numerator 24.

3. $\frac{4}{9}$ with denominator 54. **4.** $\frac{3}{5}$ with denominator 35.

Ans. 1. $\frac{15}{25}$ **2.** $\frac{24}{54}$ **3.** $\frac{24}{54}$ **4.** $\frac{21}{35}$

F. Find the missing numerals in the following.

1. $\frac{12}{15} = \frac{4}{\boxed{5}}$ **2.** $\frac{11}{33} = \frac{\boxed{1}}{3}$ **3.** $\frac{30}{40} = \frac{6}{\boxed{8}}$ **4.** $\frac{27}{63} = \frac{\boxed{3}}{7}$

G. State whether the following fractions are equivalent or not.

1. $\frac{3}{5}, \frac{9}{20}$ **2.** $\frac{4}{7}, \frac{12}{21}$ **3.** $\frac{5}{8}, \frac{20}{32}$ **4.** $\frac{4}{9}, \frac{16}{36}$

5. $\frac{12}{16}, \frac{9}{12}$ **6.** $\frac{8}{20}, \frac{12}{30}$ **7.** $\frac{1}{6}, \frac{5}{40}$ **8.** $\frac{35}{28}, \frac{5}{7}$

Ans. **1.** No **2.** Yes **3.** Yes **4.** Yes
5. Yes **6.** Yes **7.** No **8.** No

EXERCISE 1.2

A. Tick (✓) the fractions that are in their simplest forms.

1. $\frac{5}{10}$ **2.** $\frac{3}{4}$ ✓ **3.** $\frac{7}{9}$ ✓ **4.** $\frac{12}{18}$ **5.** $\frac{6}{11}$ ✓

6. $\frac{4}{40}$ **7.** $\frac{1}{5}$ ✓ **8.** $\frac{11}{18}$ ✓ **9.** $\frac{8}{12}$ **10.** $\frac{21}{23}$ ✓

B. Check if the following fractions are in the lowest term. If not, reduce to the lowest term.

1. $\frac{8}{15}$ **2.** $\frac{12}{15}$ **3.** $\frac{9}{21}$ **4.** $\frac{8}{20}$ **5.** $\frac{16}{40}$

6. $\frac{15}{24}$ **7.** $\frac{18}{25}$ **8.** $\frac{6}{16}$ **9.** $\frac{12}{30}$ **10.** $\frac{24}{42}$

Ans. **1.** Yes **2.** No, $\frac{12\div3}{15\div3}=\frac{4}{5}$ **3.** No, $\frac{9\div3}{21\div3}=\frac{3}{7}$ **4.** No, $\frac{8\div4}{20\div4}=\frac{2}{5}$ **5.** No, $\frac{16\div8}{40\div8}=\frac{2}{5}$

6. No, $\frac{15\div3}{24\div3}=\frac{5}{8}$ **7.** Yes **8.** No, $\frac{6\div2}{16\div2}=\frac{3}{8}$ **9.** No, $\frac{12\div6}{30\div6}=\frac{2}{5}$ **10.** No, $\frac{24\div6}{42\div6}=\frac{4}{7}$

EXERCISE 1.3

A. Classify the following fractions into proper (P), improper (I) and mixed (M) fractions.

1. $\frac{5}{2}$ **2.** $\frac{4}{9}$ **3.** $\frac{6}{13}$ **4.** $\frac{7}{4}$ **5.** $9\frac{4}{6}$

6. $\frac{8}{3}$ **7.** $4\frac{4}{5}$ **8.** $9\frac{2}{3}$ **9.** $\frac{8}{17}$ **10.** $\frac{5}{12}$

Ans. **1.** I **2.** P **3.** P **4.** I **5.** M
6. I **7.** M **8.** M **9.** P **10.** P

B. Convert the following mixed fractions into improper fractions.

1. $1\frac{2}{7}$ **2.** $5\frac{4}{7}$ **3.** $2\frac{2}{3}$ **4.** $3\frac{2}{5}$

5. $8\frac{3}{4}$ **6.** $12\frac{1}{2}$ **7.** $7\frac{1}{8}$ **8.** $4\frac{1}{6}$

Ans. **1.** $\frac{1\times7+2}{7}=\frac{9}{7}$ **2.** $\frac{5\times7+4}{7}=\frac{39}{7}$ **3.** $\frac{2\times3+2}{3}=\frac{8}{3}$ **4.** $\frac{3\times5+2}{5}=\frac{17}{5}$

5. $\frac{8\times4+3}{4}=\frac{35}{4}$ **6.** $\frac{12\times2+1}{2}=\frac{25}{2}$ **7.** $\frac{7\times8+1}{8}=\frac{57}{8}$ **8.** $\frac{4\times6+1}{6}=\frac{25}{6}$

C. Convert the following improper fractions into mixed fractions.

1. $\frac{9}{4}$ **2.** $\frac{8}{3}$ **3.** $\frac{15}{6}$ **4.** $\frac{19}{5}$

5. $\frac{26}{7}$ **6.** $\frac{40}{3}$ **7.** $\frac{65}{8}$ **8.** $\frac{45}{2}$

Ans. 1. $2\frac{1}{4}$ **2.** $2\frac{2}{3}$ **3.** $2\frac{3}{6}$ **4.** $3\frac{4}{5}$

5. $3\frac{5}{7}$ **6.** $13\frac{1}{3}$ **7.** $8\frac{1}{8}$ **8.** $22\frac{1}{2}$

D. Identify the group of unlike and like fractions.

1. $\frac{8}{19}, \frac{11}{19}, \frac{15}{19}$ **2.** $\frac{8}{12}, \frac{9}{16}, \frac{3}{10}$ **3.** $\frac{7}{18}, \frac{5}{22}, \frac{9}{27}$

4. $\frac{6}{9}, \frac{4}{9}, \frac{7}{9}$ **5.** $\frac{7}{16}, \frac{9}{25}, \frac{16}{49}$ **6.** $\frac{18}{35}, \frac{40}{35}, \frac{23}{35}$

Ans. 1. Like **2.** Unlike **3.** Unlike

4. Like **5.** Unlike **6.** Like

E. Convert the following unlike fractions into like fractions.

1. $\frac{9}{16}, \frac{3}{4}$ **2.** $\frac{4}{5}, \frac{2}{10}$ **3.** $\frac{2}{3}, \frac{1}{4}$ **4.** $\frac{3}{16}, \frac{21}{20}$

Ans. 1. $\frac{9}{16}, \frac{12}{16}$ **2.** $\frac{8}{10}, \frac{2}{10}$ **3.** $\frac{8}{12}, \frac{3}{12}$ **4.** $\frac{15}{80}, \frac{84}{80}$

EXERCISE 1.4

A. Compare the following fractions using >, < or =.

1. $\frac{6}{9}, \frac{4}{9}$ **2.** $\frac{1}{5}, \frac{1}{3}$ **3.** $\frac{5}{12}, \frac{8}{12}$ **4.** $\frac{6}{19}, \frac{6}{25}$

5. $\frac{1}{3}, \frac{4}{6}$ **6.** $\frac{2}{3}, \frac{5}{9}$ **7.** $\frac{4}{8}, \frac{3}{6}$ **8.** $\frac{8}{12}, \frac{2}{3}$

Ans. 1. $\frac{6}{9} > \frac{4}{9}$ 2. $\frac{1}{5} < \frac{1}{3}$ 3. $\frac{5}{12} < \frac{8}{12}$ 4. $\frac{6}{19} > \frac{6}{25}$

5. $\frac{1}{3} < \frac{4}{6}$ **6.** $\frac{2}{3} > \frac{5}{9}$ **7.** $\frac{4}{8} = \frac{3}{6}$ **8.** $\frac{8}{12} = \frac{2}{3}$

B. Arrange the following fractions in ascending order.

1. $\frac{8}{13}, \frac{8}{9}, \frac{8}{17}, \frac{8}{25}$ **2.** $\frac{5}{9}, \frac{7}{9}, \frac{2}{9}, \frac{6}{9}$ **3.** $\frac{2}{4}, \frac{3}{8}, \frac{7}{16}$ **4.** $\frac{5}{6}, \frac{4}{12}, \frac{2}{3}$

Ans. 1. $\frac{8}{25}, \frac{8}{17}, \frac{8}{13}, \frac{8}{9}$ **2.** $\frac{2}{9}, \frac{5}{9}, \frac{6}{9}, \frac{7}{9}$ **3.** $\frac{3}{8}, \frac{7}{16}, \frac{2}{4}$ **4.** $\frac{4}{12}, \frac{2}{3}, \frac{5}{6}$

C. Arrange the following fractions in descending order.

1. $\frac{8}{17}, \frac{4}{17}, \frac{9}{17}, \frac{12}{17}$ **2.** $\frac{4}{3}, \frac{4}{9}, \frac{4}{7}, \frac{4}{12}$ **3.** $\frac{5}{16}, \frac{5}{19}, \frac{5}{13}, \frac{5}{40}$ **4.** $\frac{2}{4}, \frac{2}{6}, \frac{3}{12}$

Ans. 1. $\frac{12}{17}, \frac{9}{17}, \frac{8}{17}, \frac{4}{17}$ **2.** $\frac{4}{3}, \frac{4}{7}, \frac{4}{9}, \frac{4}{12}$ **3.** $\frac{5}{13}, \frac{5}{16}, \frac{5}{19}, \frac{5}{40}$ **4.** $\frac{2}{4}, \frac{2}{6}, \frac{3}{12}$

D. Arrange the following as directed.

1. $4\frac{2}{5}, \frac{9}{2}, \frac{18}{5}, \frac{16}{3}$ (in ascending order) **2.** $3\frac{2}{3}, \frac{12}{5}, \frac{17}{4}, \frac{25}{6}$ (in descending order)

Ans. 1. $\frac{18}{5}, 4\frac{2}{5}, \frac{9}{2}, \frac{16}{3}$ **2.** $\frac{17}{4}, \frac{25}{6}, 3\frac{2}{3}, \frac{12}{5}$

EXERCISE 1.5

A. Add:

1. $\frac{5}{8}$ and $\frac{2}{8}$ **2.** $\frac{2}{4}$ and $\frac{1}{4}$ **3.** $\frac{7}{12}$ and $\frac{3}{12}$ **4.** $\frac{9}{20}$ and $\frac{5}{20}$

5. $\frac{6}{18}$ and $\frac{4}{18}$ **6.** $\frac{3}{20}$ and $\frac{5}{20}$ **7.** $\frac{9}{32}$ and $\frac{7}{32}$ **8.** $\frac{4}{25}$ and $\frac{11}{25}$

Ans. 1. $\frac{7}{8}$ **2.** $\frac{3}{4}$ **3.** $\frac{10}{12}$ or $\frac{5}{6}$ **4.** $\frac{14}{20}$ or $\frac{7}{10}$

5. $\frac{10}{18}$ or $\frac{5}{9}$ **6.** $\frac{8}{20}$ or $\frac{2}{5}$ **7.** $\frac{16}{32}$ or $\frac{1}{2}$ **8.** $\frac{15}{25}$ or $\frac{3}{5}$

B. Find the sum.

1. $\frac{1}{4} + \frac{2}{4}$ **2.** $\frac{1}{2} + \frac{1}{2}$ **3.** $\frac{3}{8} + \frac{4}{8}$ **4.** $\frac{2}{7} + \frac{3}{7}$

5. $\frac{2}{11} + \frac{3}{11} + \frac{4}{11}$ **6.** $\frac{4}{15} + \frac{2}{15} + \frac{3}{15}$ **7.** $\frac{3}{25} + \frac{5}{25} + \frac{7}{25}$ **8.** $\frac{3}{20} + \frac{2}{20} + \frac{7}{20}$

Ans. 1. $\frac{3}{4}$ **2.** $\frac{2}{2}$ or 1 **3.** $\frac{7}{8}$ **4.** $\frac{5}{7}$

5. $\frac{9}{11}$ **6.** $\frac{9}{15}$ or $\frac{3}{5}$ **7.** $\frac{15}{25}$ or $\frac{3}{5}$ **8.** $\frac{12}{20}$ or $\frac{3}{5}$

C. Subtract:

1. $\frac{1}{3}$ from $\frac{2}{3}$ **2.** $\frac{6}{13}$ from $\frac{9}{13}$ **3.** $\frac{3}{15}$ from $\frac{8}{15}$ **4.** $\frac{2}{11}$ from $\frac{5}{11}$

5. $\frac{8}{17}$ from $\frac{15}{17}$ **6.** $\frac{4}{21}$ from $\frac{13}{21}$ **7.** $\frac{11}{40}$ from $\frac{36}{40}$ **8.** $\frac{16}{25}$ from $\frac{18}{25}$

Ans. 1. $\frac{1}{3}$ **2.** $\frac{3}{13}$ **3.** $\frac{5}{15}$ or $\frac{1}{3}$ **4.** $\frac{3}{11}$

5. $\frac{7}{17}$ **6.** $\frac{9}{21}$ or $\frac{3}{7}$ **7.** $\frac{25}{40}$ or $\frac{5}{8}$ **8.** $\frac{2}{25}$

D. Find the difference:

1. $\frac{16}{40} - \frac{1}{40}$ **2.** $\frac{8}{25} - \frac{3}{25}$ **3.** $\frac{23}{35} - \frac{8}{35}$ **4.** $\frac{26}{60} - \frac{12}{60}$

5. $\frac{25}{80} - \frac{9}{80}$ **6.** $\frac{29}{60} - \frac{14}{60}$ **7.** $\frac{35}{48} - \frac{11}{48}$ **8.** $\frac{31}{50} - \frac{6}{50}$

Ans. **1.** $\frac{15}{40}$ or $\frac{3}{8}$ **2.** $\frac{5}{25}$ or $\frac{1}{5}$ **3.** $\frac{15}{35}$ or $\frac{3}{7}$ **4.** $\frac{14}{60}$ or $\frac{7}{30}$

5. $\frac{16}{80}$ or $\frac{1}{5}$ **6.** $\frac{15}{60}$ or $\frac{1}{4}$ **7.** $\frac{24}{48}$ or $\frac{1}{2}$ **8.** $\frac{25}{50}$ or $\frac{1}{2}$

E. Solve the following.

1. $\frac{1}{5} + \frac{2}{5} + \frac{1}{5}$ **2.** $\frac{4}{8} + \frac{1}{8} - \frac{3}{8}$ **3.** $\frac{4}{12} - \frac{5}{12} + \frac{7}{12}$ **4.** $\frac{13}{15} - \frac{8}{15} - \frac{4}{15}$

Ans. **1.** $\frac{4}{5}$ **2.** $\frac{2}{8}$ or $\frac{1}{4}$ **3.** $\frac{6}{12}$ or $\frac{1}{2}$ **4.** $\frac{1}{15}$

EXERCISE 1.6

A. Add the following.

1. $\frac{1}{2} + \frac{3}{8}$ **2.** $\frac{5}{6} + \frac{2}{3}$ **3.** $\frac{4}{5} + \frac{2}{10}$ **4.** $\frac{3}{4} + \frac{11}{20}$

5. $\frac{2}{3} + \frac{1}{4}$ **6.** $\frac{3}{5} + \frac{2}{6}$ **7.** $\frac{4}{15} + \frac{7}{12}$ **8.** $\frac{1}{4} + \frac{5}{6}$

Ans. **1.** $\frac{7}{8}$ **2.** $\frac{3}{2}$ or $1\frac{1}{2}$ **3.** 1 **4.** $\frac{13}{10}$ or $1\frac{3}{10}$

5. $\frac{11}{12}$ **6.** $\frac{14}{15}$ **7.** $\frac{17}{20}$ **8.** $\frac{13}{12}$ or $1\frac{1}{12}$

B. Find the sum.

1. $4 + \frac{2}{3}$ **2.** $2\frac{3}{4} + 4\frac{1}{4}$ **3.** $5\frac{2}{7} + \frac{4}{7}$ **4.** $6\frac{2}{3} + 2\frac{4}{9}$

5. $4 + \frac{1}{2} + \frac{3}{4}$ **6.** $4\frac{1}{3} + 5 + \frac{4}{6}$ **7.** $1\frac{2}{3} + 2\frac{2}{3}$ **8.** $1 + \frac{2}{3} + 1\frac{4}{9}$

Ans. **1.** $\frac{14}{3}$ or $4\frac{2}{3}$ **2.** 7 **3.** $5\frac{6}{7}$ **4.** $9\frac{1}{9}$

5. $5\frac{1}{4}$ **6.** 10 **7.** $4\frac{1}{3}$ **8.** $3\frac{1}{9}$

C. Subtract the following.

1. $\frac{2}{5} - \frac{3}{10}$ **2.** $\frac{4}{9} - \frac{1}{3}$ **3.** $\frac{3}{4} - \frac{5}{12}$ **4.** $\frac{16}{21} - \frac{2}{7}$

5. $\frac{5}{6} - \frac{3}{4}$ **6.** $\frac{4}{5} - \frac{1}{3}$ **7.** $\frac{6}{15} - \frac{3}{10}$ **8.** $\frac{5}{12} - \frac{2}{9}$

Ans. **1.** $\frac{1}{10}$ **2.** $\frac{1}{9}$ **3.** $\frac{1}{3}$ **4.** $\frac{10}{21}$

5. $\frac{1}{12}$ **6.** $\frac{7}{15}$ **7.** $\frac{1}{10}$ **8.** $\frac{7}{36}$

D. Find the difference.

1. $4 - 2\frac{1}{2}$
2. $8\frac{3}{7} - 5$
3. $8\frac{2}{3} - 5\frac{1}{3}$
4. $16\frac{7}{12} - 5\frac{5}{12}$
5. $8\frac{2}{3} - 4\frac{1}{2}$
6. $7\frac{2}{6} - 4\frac{1}{9}$
7. $14\frac{3}{4} - 2\frac{4}{12}$
8. $4\frac{4}{5} - 2\frac{2}{3}$

Ans. 1. $\frac{3}{2}$ or $1\frac{1}{2}$ 2. $\frac{24}{7}$ or $3\frac{3}{7}$ 3. $\frac{10}{3}$ or $3\frac{1}{3}$ 4. $\frac{67}{6}$ or $11\frac{1}{6}$

5. $\frac{25}{6}$ or $4\frac{1}{6}$ 6. $\frac{29}{9}$ or $3\frac{2}{9}$ 7. $\frac{149}{12}$ or $12\frac{5}{12}$ 8. $\frac{32}{15}$ or $2\frac{2}{15}$

E. Do the following.

1. Add $4\frac{3}{9}$ and $3\frac{2}{6}$, then subtract $5\frac{2}{3}$.

Ans. 2

2. Subtract $4\frac{3}{7}$ from $6\frac{9}{14}$ and add it to 15.

Ans. $17\frac{3}{14}$

3. Subtract the sum of $\frac{4}{9}$ and $1\frac{2}{3}$ from $3\frac{5}{6}$.

Ans. $1\frac{13}{18}$

4. Subtract the sum of 3 and $\frac{5}{8}$ from the sum of $\frac{3}{4}$ and $5\frac{7}{12}$.

Ans. $2\frac{17}{24}$

EXERCISE 1.7

Solve the following word problems.

1. Madhu wants to buy a geometry box for ₹$15\frac{1}{2}$. She has only ₹$5\frac{3}{4}$. How much more money does she need?

Ans. ₹$9\frac{3}{4}$

2. Rajesh reaches school in $\frac{3}{8}$ hour by a bicycle and in $\frac{3}{4}$ hour if he walks. How much more time does it take him to walk to school than to go by the bicycle?

Ans. $\frac{3}{8}$ hour

3. Karan bought a notebook for ₹ $25\frac{5}{8}$ and a textbook for ₹ $30\frac{1}{2}$. How much money did he spend for buying these items?

Ans. ₹$56\frac{1}{8}$

4. Rita buys $2\frac{1}{4}$ kg vegetables and $\frac{15}{6}$ kg fruits. Which thing does she buy more and by how much?

Ans. Fruits, by $\frac{1}{4}$ kg more

5. Abhishek bought $2\frac{2}{5}$ metres cloth for a shirt and $1\frac{1}{4}$ metres for pants. What length of the cloth did he buy in all?

Ans. $3\frac{13}{20}$ m

6. A vessel had $4\frac{3}{8}$ litres of milk. A cat drank $1\frac{1}{2}$ litres. How much milk was left in the vessel?

Ans. $2\frac{7}{8}$ L

7. What should be added to $7\frac{2}{3}$ to get the result $10\frac{1}{6}$?

Ans. $2\frac{1}{2}$

8. What should be subtracted from $4\frac{7}{16}$ to make it $3\frac{1}{2}$?

Ans. $\frac{15}{16}$

9. Find the fraction from which $2\frac{1}{2}$ is subtracted, we get $3\frac{3}{4}$.

Ans. $6\frac{1}{4}$

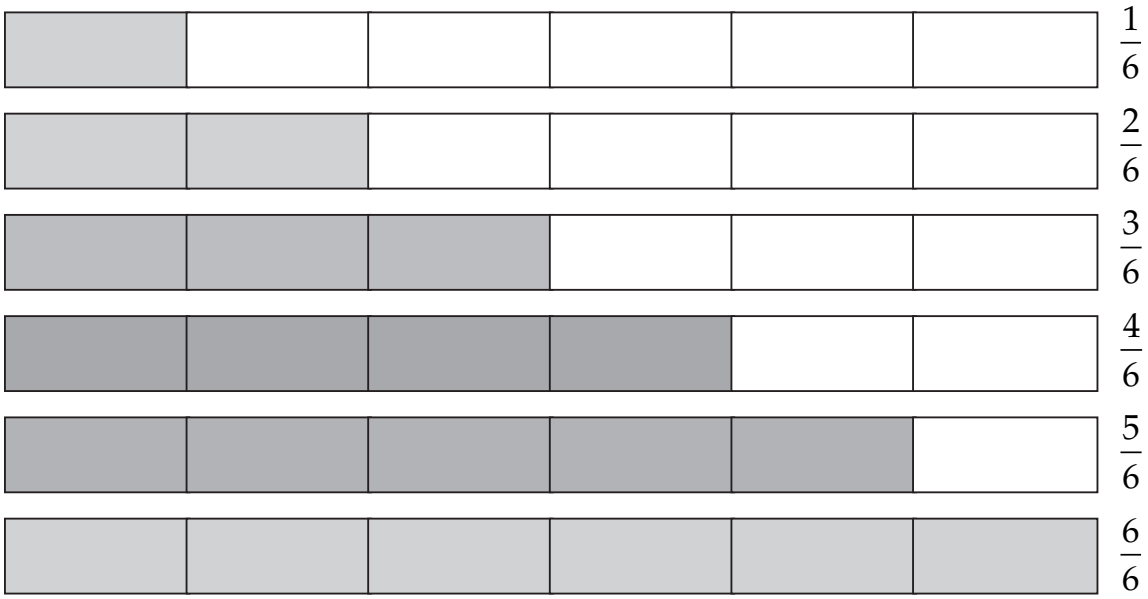
10. Sahil drinks $6\frac{3}{4}$ glasses of water in a day. Maya drinks $1\frac{1}{2}$ more glasses of water than Sahil. How much water do they together drink?

Ans. 15 glasses

PROJECT

Make a fraction chart on a big chart paper representing 1 whole; $\frac{1}{2}, \frac{2}{2}$; $\frac{1}{3}, \frac{2}{3}, \frac{3}{3}$; $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}$; etc. Display in the class and discuss about it.

Example: Fractions $\frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}$ and $\frac{6}{6}$ can be shown as follows.



Prepare the chart up to denominator 10.

Now, answer the following questions.

1. How many $\frac{1}{6}$ (one-sixth) make 1 whole?

Ans. 6

2. Is $\frac{2}{6}$ double of $\frac{1}{3}$?

Ans. No, both are same

3. How many $\frac{1}{4}$ (one-fourth) make $\frac{1}{2}$?

Ans. 2

4. Do $\frac{1}{2}, \frac{2}{4}$ and $\frac{5}{10}$ represent the same part of a whole?

Ans. Yes

2. Decimals

ANSWERS

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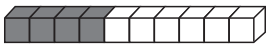
Read and write the following.

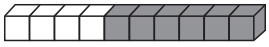
1.	0.3	**Zero point three**	**2.**	**0.7**	zero point seven
3.	**.8**	point eight	**4.**	0.6	**Zero point six**
5.	0.9	**Zero point nine**	**6.**	**.5**	decimal five

EXERCISE 2.1

A. Write the shaded parts as common fractions and decimals.

1. 

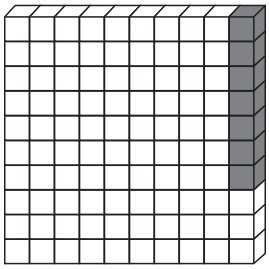
$\frac{4}{10} = 0.4$

2. 

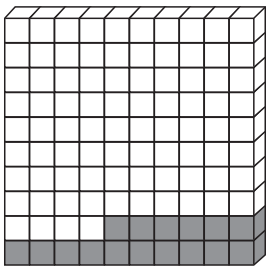
$\frac{6}{10} = 0.6$

3. 

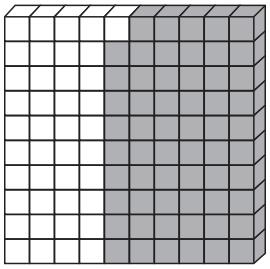
$\frac{8}{10} = 0.8$

4. 

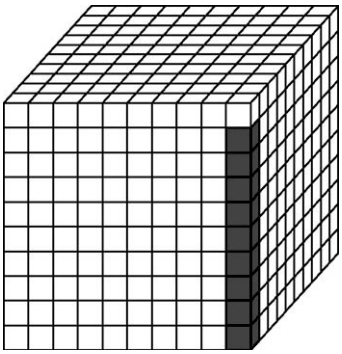
$\frac{7}{100} = 0.07$

5. 

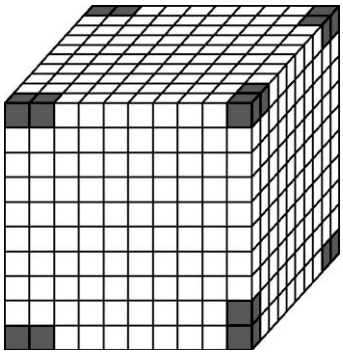
$\frac{16}{100} = 0.16$

6. 

$\frac{59}{100} = 0.59$

7. 

$\frac{9}{1000} = 0.009$

8. 

$\frac{14}{1000} = 0.014$

B. Write the following as decimals.

1. $\frac{5}{10}$ **2.** $\frac{6}{10}$ **3.** $\frac{7}{100}$ **4.** $\frac{17}{100}$ **5.** $\frac{8}{1000}$

6. $\frac{35}{1000}$ **7.** $\frac{48}{100}$ **8.** $\frac{3}{10}$ **9.** $\frac{88}{100}$ **10.** $\frac{145}{1000}$

Ans. 1. 0.5 **2.** 0.6 **3.** 0.07 **4.** 0.17 **5.** 0.008

6. 0.035 **7.** 0.48 **8.** 0.3 **9.** 0.88 **10.** 0.145

C. Write the following as common fractions.

1. 0.4 **2.** 0.9 **3.** 0.73 **4.** 0.912 **5.** 0.817

6. 0.02 **7.** 0.091 **8.** 0.006 **9.** 0.123 **10.** 0.9

Ans. **1.** $\frac{4}{10}$ **2.** $\frac{9}{10}$ **3.** $\frac{73}{100}$ **4.** $\frac{912}{1000}$ **5.** $\frac{817}{1000}$

6. $\frac{2}{100}$ **7.** $\frac{91}{1000}$ **8.** $\frac{6}{1000}$ **9.** $\frac{123}{1000}$ **10.** $\frac{9}{10}$

D. Read the following decimals.

1. 0.5 **2.** 0.76 **3.** 0.921 **4.** 1.508 **5.** 62.138

Ans. **1.** Zero point five **2.** Zero point seven six **3.** Zero point nine two one

4. One point five zero eight **5.** Sixty-two point one three eight

E. Write the following decimals in the expanded form.

1. 4.2 **2.** 0.68 **3.** 0.897 **4.** 23.594 **5.** 1.062

Ans. **1.** $4 + \frac{2}{10}$ or 4 + 0.2 **2.** $\frac{6}{10} + \frac{8}{100}$ or 0.6 + 0.08 **3.** $\frac{8}{10} + \frac{9}{100} + \frac{7}{1000}$ or 0.8 + 0.09 + 0.007

4. $20 + 3 + \frac{5}{10} + \frac{9}{100} + \frac{4}{1000}$ or 20 + 3 + 0.5 + 0.09 + 0.004

5. $1 + \frac{0}{10} + \frac{6}{100} + \frac{2}{1000}$ or 1 + 0.06 + 0.002

F. Write in the standard form.

1. $1 + \frac{2}{10} + \frac{5}{100}$ **2.** $600 + 2 + \frac{1}{10} + \frac{2}{1000}$ **3.** $\frac{1}{10} + \frac{3}{100} + \frac{5}{1000}$

Ans. **1.** 1.25 **2.** 602.102 **3.** 0.135

G. Match the following.

1. Place value of 4 in 6.345

2. Short form of $5 + \frac{4}{100} + \frac{3}{1000}$

3. 0.028

4. $\frac{543}{1000}$

5. One point one one five

6. Eight-thousandths

(a) 1.115

(b) $\frac{28}{1000}$

(c) $\frac{4}{100}$

(d) 5.043

(e) $\frac{8}{1000}$

(f) 0.543

MENTAL TEST

Find like decimals in the following.

1. 4.6, 5.92, 0.001, 1.67	**5.92, 1.67**
2. 8.36, 0.7, 5, 9.123, 1.5	**0.7, 1.5**
3. 4.123, 9.25, 623, 0.009	**4.123, 0.009**
4. 1.23, 5.01, 3.025, 0.1	**1.23, 5.01**

EXERCISE 2.2

A. State whether the following are equivalent decimals.

1. 0.25, 0.250, 0.025 **2.** 0.02, 0.002, 0.200 **3.** 0.5, 0.50, 0.500

Ans. 1. No **2.** No **3.** Yes

B. Convert the following into like decimals.

1. 1.6, 0.16, 0.016 **2.** 5.8, 0.58 **3.** 1.25, 2.5, 65

4. 8.3, 9.15, 3.753 **5.** 5, 7.51, 0.011 **6.** 0.9, 0.006, 0.52

Ans. 1. 1.600, 0.160, 0.016 **2.** 5.80, 0.58 **3.** 1.25, 2.50, 65.00

4. 8.300, 9.150, 3.753 **5.** 5.000, 7.510, 0.011 **6.** 0.900, 0.006, 0.520

C. Compare the following using >, < or =.

1. 5.7 [<] 7.5 **2.** 12.5 [>] 1.25 **3.** 6.8 [>] 6.68

4. 0.97 [>] 0.79 **5.** 5.724 [>] 5.274 **6.** 0.82 [>] 0.802

7. 0.123 [<] 0.132 **8.** 15.896 [=] 15.896 **9.** 0.012 [<] 0.015

D. Arrange the following in ascending order.

1. 5.23, 5.32, 2.53, 2.35 **2.** 0.5, 0.3, 0.9, 0.4

3. 0.123, 0.321, 0.132, 0.312 **4.** 1.555, 1.55, 2.555, 1.5

Ans. 1. 2.35, 2.53, 5.23, 5.32 **2.** 0.3, 0.4, 0.5, 0.9

3. 0.123, 0.132, 0.312, 0.321 **4.** 1.5, 1.55, 1.555, 2.555

E. Arrange the following in descending order.

1. 1.11, 2.11, 0.112, 11.2 **2.** 5.6, 6.5, 0.56, 0.65

3. 6.92, 2.96, 6.29, 2.69 **4.** 0.53, 53, 0.035, 0.053

Ans. 1. 11.2, 2.11, 1.11, 0.112 **2.** 6.5, 5.6, 0.65, 0.56

3. 6.92, 6.29, 2.96, 2.69 **4.** 53, 0.53, 0.053, 0.035

EXERCISE 2.3

A. Add the following.

1.	**2.**	**3.**	**4.**
5.6	9.25	8.321	15.32
+3.8	+3.57	+0.596	+5.16
9.4	12.82	8.917	20.48

B. Add.

1. 6.2 and 9.5 **2.** 123.52 and 23.23 **3.** 6.84 and 9.573

4. 4.7, 5.3 and 9.6 **5.** 2.53, 7.51 and 2.39 **6.** 2.681, 1.112 and 0.156

7. 3.5, 4.26 and 18.1 **8.** 2.89, 0.289 and 28.9 **9.** 0.5, 0.55 and 0.555

Ans. 1. 15.7 **2.** 146.75 **3.** 16.413

4. 19.6 **5.** 12.43 **6.** 3.949

7. 25.86 **8.** 32.079 **9.** 1.605

C. Subtract the following.

1.
$$\begin{array}{r} 7.4 \\ -3.2 \\ \hline 4.2 \end{array}$$

2.
$$\begin{array}{r} 4.62 \\ -0.58 \\ \hline 4.04 \end{array}$$

3.
$$\begin{array}{r} 9.625 \\ -3.526 \\ \hline 6.099 \end{array}$$

4.
$$\begin{array}{r} 6.25 \\ -0.026 \\ \hline 6.224 \end{array}$$

D. Subtract.

1. 4.6 from 6.4 **2.** 7.53 from 9.18 **3.** 16.523 from 30.234

4. 4.125 from 7.12 **5.** 9.87 from 18.523 **6.** 64.521 from 246.5

7. 14.69 from 25.4 **8.** 0.326 from 1 **9.** 2.45 from 6.011

Ans. 1. 1.8 **2.** 1.65 **3.** 13.711

4. 2.995 **5.** 8.653 **6.** 181.979

7. 10.71 **8.** 0.674 **9.** 3.561

EXERCISE 2.4

A. Write each of the following in decimals.

1. 74 m 70 cm **2.** 755 m 8 cm **3.** 2 km 285 m

4. 54 km 750 m **5.** 962 km 800 m **6.** 914 km 97 m

Ans. 1. 74.70 m **2.** 755.08 m **3.** 2.285 km

4. 54.750 km **5.** 962.800 km **6.** 914.097 km

B. Convert into metres.

1. 45 cm **2.** 8 cm **3.** 45 m 30 cm

Ans. 1. 0.45 m **2.** 0.08 m **3.** 45.30 m

C. Convert into kilometres.

1. 2 km 47 m **2.** 27 km 150 m **3.** 6 km 409 m

Ans. 1. 2.047 km **2.** 27.150 km **3.** 6.409 km

D. Write each of the following in decimals:

1. 2 kg 535 g **2.** 87 kg 42 g **3.** 57 kg 5 g

Ans. 1. 2.535 kg **2.** 87.042 kg **3.** 57.005 kg

E. Convert into kilograms.

1. 255 g **2.** 25 kg 48 g **3.** 623 kg 99 g

Ans. 1. 0.255 kg **2.** 25.048 kg **3.** 623.099 kg

F. Write each of the following in decimals.

1. 2 L 765 mL **2.** 26 L 24 mL **3.** 76 L 9 mL

Ans. 1. 2.765 L **2.** 26.024 L **3.** 76.009 L

G. Convert into litres.

1. 185 mL **2.** 15 L 270 mL **3.** 8 L 15 mL

Ans. 1. 0.185 L **2.** 15.270 L **3.** 8.015 L

H. Express the following amounts of money in decimals.

1. 41 rupees 45 paise **2.** 45 rupees 76 paise **3.** 230 rupees 35 paise

Ans. 1. ₹41.45 **2.** ₹45.76 **3.** ₹230.35

I. Convert into rupees.

1. 85 paise **2.** 10 rupees 25 paise **3.** 850 rupees 9 paise

Ans. 1. ₹0.85 **2.** ₹10.25 **3.** ₹850.09

THINK AND ANSWER

Asha buys 2.5 kg apples, 0.25 kg grapes, 0.5 kg oranges and 0.05 kg lemons.

1. Which item does she buy (a) minimum, (b) maximum?

2. Find the total weight of the items that Asha buys.

Ans. 1. (a) Lemons (b) Apples **2.** 3.3 kg

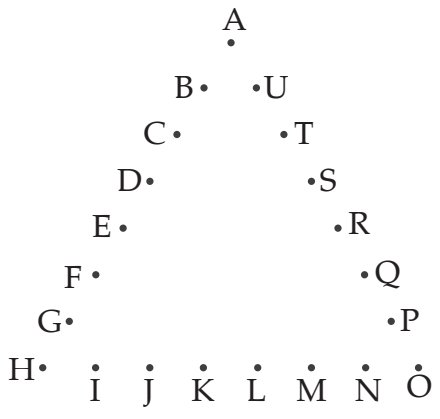
PUZZLE

Can you say which points have same value? Join the points having same value.

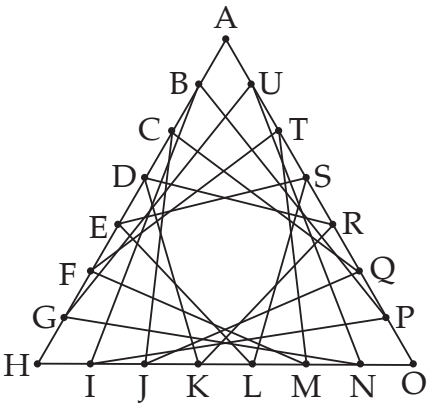
A	F	G	I	J	K	L	M	N	O	P
5.1	2.6	$1+\frac{2}{10}$ = **1.2**	4.0 + 0.3 = **4.3**	0.3 + 0.4 = **0.7**	0.55 − 0.22 = **0.33**	0.1 + 0.02 + 0.003 = **0.123**	4.0 − 1.4 = **2.6**	1.200	5.10	$\frac{43}{10}$ = **4.3**

B	E	H	U	T	Q
3.1 + 1.2 = **4.3**	0.123	$\frac{51}{10}$ = **5.1**	$\frac{12}{10}$ = **1.2**	1.2 + 1.4 = **2.6**	$\frac{7}{10}$ = **0.7**

C	D	S	R
1.5 − 0.8 = **0.7**	0.11 + 0.22 = **0.33**	$\frac{123}{1000}$ = **0.123**	0.33



Ans.


A
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O

3. Measurement

ANSWERS

LET US RECALL

Fill in the blanks using the suitable unit of measurement.

1. The height of a glass is about 7 **cm** .
2. The weight of an empty glass is about 50 **g** .
3. A glass can hold about 200 **mL** water.
4. The depth of a water tank is about 1 **m** .
5. The capacity of a tank is about 1000 **L** .
6. The weight of an empty tank is about 65 **kg** .
7. The distance between two cities is measured in **km** .
8. A bus needs 40 **L** diesel to go from one city to another.

EXERCISE 3.1

A. Write the appropriate units to measure these things.

1. mm, cm, m or km

(a) Length of a pencil	**cm**	(b) Length of a stamp	**mm**
(c) Height of a building	**m**	(d) Distance from home to school	**km**

2. g or kg

(a) A chalk piece	**g**	(b) A tin full of ghee	**kg**
(c) A ring	**g**	(d) A sack of rice	**kg**

3. mL or L

(a) Teaspoonful medicine	**mL**	(b) Honey in a cup	**mL**
(c) Petrol in a bike	**L**	(d) Water in a pool	**L**

B. Make the combination of measuring units.

1. 1 kg = 500 g + [**500**] g

2. 500 g = 200 g + [**200**] g + [**100**] g

3. 1 L = 200 mL + 200 mL + [**500**] mL + [**100**] mL

4. 5 L = [**2**] L + 2 L + [**500**] mL + [**500**] mL

5. 200 mL = [**50**] mL + [**50**] mL + [**50**] mL + [**50**] mL

6. 200 g = [**100**] g + [**50**] g + [**50**] g

C. **1.** Use a 30-cm ruler and measure the following.

(a) Length of a 100-rupee note (b) Length of this textbook

(c) Width of this book (d) Length of your cubit

2. Use a measuring tape and measure the following.

(a) Your waist size (b) Length of your TV or computer screen

(c) Width of your bed (d) Length of your teacher's table

Ans. **1.** Do it yourself. **2.** Do it yourself.

EXERCISE 3.2

A. Convert into millimetres.

1. 5 cm **2.** 7 cm 5 mm **3.** 9 cm 2 mm **4.** 12 cm 8 mm

Ans. **1.** 50 mm **2.** 75 mm **3.** 92 mm **4.** 128 mm

B. Convert into centimetres.

1. 4 m **2.** 8 m 40 cm **3.** 10 m 5 cm **4.** 12 m 75 cm

Ans. **1.** 400 cm **2.** 840 cm **3.** 1005 cm **4.** 1275 cm

C. Convert into metres.

1. 15 km **2.** 5 km 150 m **3.** 24 km 80 m **4.** 18 km 5 m

Ans. **1.** 15000 m **2.** 5150 m **3.** 24080 m **4.** 18005 m

D. Convert into grams.

1. 3 kg **2.** 6 kg 200 g **3.** 17 kg 9 g **4.** 5 kg 70 g

Ans. **1.** 3000 g **2.** 6200 g **3.** 17009 g **4.** 5070 g

E. Convert into millilitres.

1. 7 L **2.** 4 L 325 mL **3.** 19 L 60 mL **4.** 48 L 600 mL

Ans. **1.** 7000 mL **2.** 4325 mL **3.** 19060 mL **4.** 48600 mL

F. Convert into centimetres and millimetres.

1. 40 mm **2.** 36 mm **3.** 94 mm **4.** 125 mm

Ans. **1.** 4 cm **2.** 3 cm 6 mm **3.** 9 cm 4 mm **4.** 12 cm 5 mm

G. Convert into metres and centimetres.

1. 300 cm **2.** 496 cm **3.** 1240 cm **4.** 92560 cm

Ans. **1.** 3 m **2.** 4 m 96 cm **3.** 12 m 40 cm **4.** 925 m 60 cm

H. Convert into kilometres and metres.

1. 13000 m **2.** 1234 m **3.** 54320 m **4.** 62008 m

Ans. **1.** 13 km **2.** 1 km 234 m **3.** 54 km 320 m **4.** 62 km 8 m

I. Convert into litres and millilitres.

1. 10000 mL **2.** 6789 mL **3.** 98705 mL **4.** 87045 mL

Ans. **1.** 10 L **2.** 6 L 789 mL **3.** 98 L 705 mL **4.** 87 L 45 mL

J. Convert into kilograms and grams.

1. 2468 g **2.** 97531 g **3.** 46080 g **4.** 10009 g

Ans. 1. 2 kg 468 g **2.** 97 kg 531 g **3.** 46 kg 80 g **4.** 10 kg 9 g

EXERCISE 3.3

A. Add the following.

1.

cm	mm
5	6
+ 9	8
1 5	**4**

2.

L	mL
4 8	4 3 5
+ 3 5	6 3 9
8 4	**0 7 4**

3.

km	m
1 2 9	2 4 2
+ 6 5 8	3 1 7
7 8 7	**5 5 9**

4.

m	cm
4 5	7 5
+ 3 4	1 6
7 9	**9 1**

5.

kg	g
9 0	4 6 0
+ 5 8	3 2 5
1 4 8	**7 8 5**

6.

L	mL
1 4 4	6 5 8
+ 3 9 5	8 2 0
5 4 0	**4 7 8**

B. Add.

1. 42 m 18 cm, 24 m 81 cm and 8 m 65 cm

2. 90 km 360 m, 35 km 772 m and 68 km 490 m

3. 116 kg 350 g, 208 kg 500 g and 15 kg 800 g

4. 45 L 210 mL, 86 L 120 mL and 75 L 500 mL

Ans. 1. 75 m 64 cm **2.** 194 km 622 m **3.** 340 kg 650 g **4.** 206 L 830 mL

C. Subtract the following.

1.

kg	g
1 5	2 6 5
– 8	1 1 5
7	**1 5 0**

2.

L	mL
4 2	3 2 5
– 2 4	2 3 5
1 8	**0 9 0**

3.

kg	g
6 2 8	5 3 9
– 2 3 5	8 4 6
3 9 2	**6 9 3**

4.

km	m
7 5	4 0 5
– 5 7	5 0 4
1 7	**9 0 1**

5.

m	cm
6 5	4 4
– 5 6	4 8
8	**9 6**

6.

km	m
4 5 6	9 8 7
– 2 4 7	5 8 8
2 0 9	**3 9 9**

D. Subtract.

1. 8 m 25 cm from 10 m 50 cm

2. 18 kg 30 g from 25 kg 5 g

3. 91 L 600 mL from 110 L 550 mL

4. 408 km 76 m from 500 km

Ans. 1. 2 m 25 cm **2.** 6 kg 975 g **3.** 18 L 950 mL **4.** 91 km 924 m

EXERCISE 3.4

A. Multiply.

1. 2 cm 4 mm by 6 **2.** 8 m 15 cm by 8 **3.** 16 L 110 mL by 5

4. 24 kg 84 g by 17 **5.** 216 km 118 m by 7 **6.** 81 m 5 cm by 14

7. 35 km 60 m by 24 **8.** 216 L 315 mL by 9 **9.** 6 kg 30 g by 36

Ans. 1. 14 cm 4 mm **2.** 65 m 20 cm **3.** 80 L 550 mL

4. 409 kg 428 g **5.** 1512 km 826 m **6.** 1134 m 70 cm or 1 km 134 m 70 cm

7. 841 km 440 m **8.** 1946 L 835 mL **9.** 217 kg 80 g

B. Divide.

1. 18 m 5 cm by 5 **2.** 12 km 345 m by 3 **3.** 42 kg 528 g by 6

4. 436 L 122 mL by 9 **5.** 324 m 15 cm by 15 **6.** 48 L 696 mL by 24

7. 98 kg 40 g by 30 **8.** 123 km 456 m by 12 **9.** 609 L 444 mL by 36

Ans. 1. 3 m 61 cm **2.** 4 km 115 m **3.** 7 kg 88 g

4. 48 L 458 mL **5.** 21 m 61 cm **6.** 2 L 29 mL

7. 3 kg 268 g **8.** 10 km 288 m **9.** 16 L 929 mL

EXERCISE 3.5

Solve the following word problems.

1. Anil bought 8 kg 250 g cookies for his birthday party. 5 kg 745 g cookies were consumed. How much quantity of cookies was left?

Ans. 2 kg 505 g

2. In a family, father weighs 75 kg 200 g, mother weighs 60 kg 375 g and their daughter weighs 35 kg 750 g. What is their total weight?

Ans. 171 kg 325 g

3. Nagma has 6 kg 400 g of sugar. She puts it into smaller packets. How many packets of 800 g can she make?

Ans. 8 packets

4. In a building, there are 8 floors and height of each floor is 6 m 72 cm. Find the height of the building.

Ans. 53 m 76 cm

5. A container holds 19 L 500 mL of mustard oil. If 8 L 855 mL is poured into a vessel, how much mustard oil is left in the container?

Ans. 10 L 645 mL

6. Ali's family consumes 125 L 750 mL of water and Nilu's family consumes 140 L 280 mL of water in a day. How much water is consumed by both families in a day?

Ans. 266 L 30 mL

7. There are 15 glasses of milk. Each glass holds equal quantity and total quantity is 11 L 250 mL. Find the amount of milk in each glass.

Ans. 750 mL

8. The length of one side of a square shaped park is 34 m 75 cm. What is the length of its four sides?

Ans. 139 m

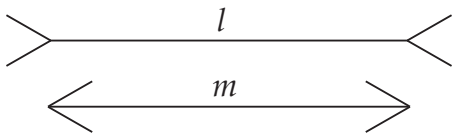
9. Shridhi bought two ropes. One rope is 50 m 40 cm long and other is 75 m 8 cm long. What is the total length of the two ropes?

Ans. 125 m 48 cm

10. Shashi drives 101 km 200 m in 5 days of a week to go to her office. How much distance does she drive per day?

Ans. 20 km 240 m

11. Are the lines l and m of equal length? If not, mark the line that has greater length.



Ans. Yes, lines l and m are of equal length.

12. Anita buys a piece of ribbon of length 1 m 20 cm. What amount does she pay for it if 1 m ribbon costs ₹ 20?

Ans. ₹ 24

PUZZLE

2. Soni has 5 kg weight and a 2 kg weight. How will she weigh 1 kg of sugar by using her balance twice?

Ans. Once Soni will weigh 3 kg sugar by putting 5 kg weight on one side and some sugar with 2 kg weight on another side. Further, she will replace 5 kg weight by 2 kg weight and separate 1 kg sugar from other pan (i.e., 3 kg sugar). That means, 5 kg = 2 kg + 3 kg (sugar) and 2 kg = (3 kg – 1 kg) sugar.

3. Lata has only a 500 g weight. She has to weigh 1 kg 500 g onions by using her balance twice. Can she do this job? How?

Ans. Yes, Lata can do this job as given below:

First, she will weigh 500 g onions. Then, she will put 500 g weight and 500 g onions on one pan and weigh 1 kg onion on another pan. Thus, she will get 1 kg 500 g onions.

4. Rishav has a 10 kg weight and a 2 kg weight. Can he weigh 6 kg of flour by using his balance twice?

Ans. Yes, First Rishav can weigh 8 kg flour by putting 10 kg weight on one pan and flour with 2 kg weight on another pan. Then, he can take out 2 kg flour from 8 kg flour so that the remaining flour will be 6 kg.

That means, 10 kg = 2 kg + 8 kg (flour) and (8 kg – 2 kg) flour = 6 kg flour

4. Time and Calendar

ANSWERS

LET US RECALL

A. Tick the time which is noted down correctly.

1. 

12:10 ☐ 12:15 ☐ 3:00 ☑

2. 

8:25 ☐ 5:10 ☐ 5:40 ☑

3. 

7:05 ☐ 7:20 ☑ 4:35 ☐

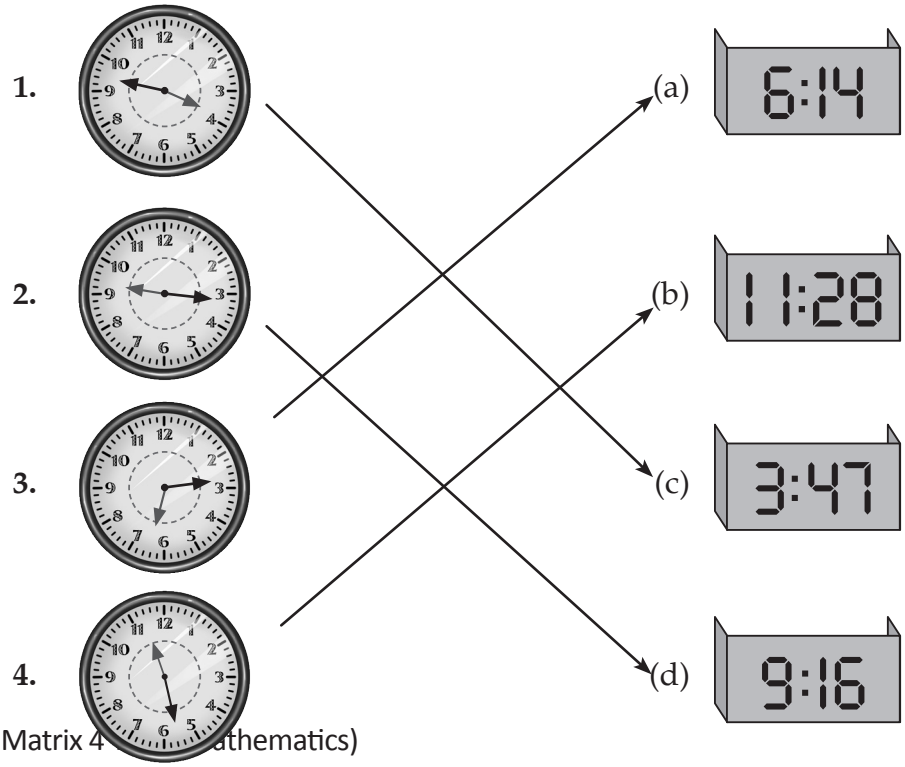
B. Do you like watching the sky? If yes, then record the time of sunrise and sunset for a week. (In multiples of 5 minutes)

Days of a week	1. Mon	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____
Sunrise							
Sunset							

Ans. Do it yourself.

EXERCISE 4.1

A. Match the clocks showing the same time.



B. Read and write the time by drawing hands on the clocks.

1. 

8:13

13 minutes past 8

2. 

5:38

22 minutes to 6

3. 

1:22

22 minutes past 1

C. Convert the following into minutes.

	1. 4 h	**2.** 12 h	**3.** 6 h 40 min	**4.** 16 h 15 min
Ans.	**1.** 240 min	**2.** 720 min	**3.** 400 min	**4.** 975 min

D. Convert the following into seconds.

	1. 9 min	**2.** 15 min 20 sec	**3.** 7 min 5 sec	**4.** 24 min 8 sec
Ans.	**1.** 540 s	**2.** 920 s	**3.** 425 s	**4.** 1448 s

E. Convert the following into hours and minutes.

	1. 300 min	**2.** 625 min	**3.** 1400 min	**4.** 2345 min
Ans.	**1.** 5 h	**2.** 10 h 25 min	**3.** 23 h 20 min	**4.** 39 h 5 min

F. Convert the following into minutes and seconds.

	1. 840 sec	**2.** 1800 sec	**3.** 4580 sec	**4.** 6540 sec
Ans.	**1.** 14 min	**2.** 30 min	**3.** 76 min 20s or 1 h 16 min 20 s	**4.** 109 min or 1 h 49 min

MENTAL TEST

Fill in the blanks with a.m. or p.m.

1. Getting up in the morning at 6:30 **a.m.**
2. Playing cricket in the evening 5:00 **p.m.**
3. Maths period from 11:45 **a.m.** to 12:20 **p.m.**
4. Homework from 3:00 **p.m.** to 4:50 **p.m.**

EXERCISE 4.2

A. Read the clock and write the time using a.m. and p.m.

1. 

Leave for school

7:00 a.m.

2. 

Lunch break

11:30 a.m.

3. 

School over

1:15 p.m.

4. 

Have dinner

8:45 p.m.

B. Using a.m. and p.m., make the timetable of Rahul.

1. Rahul wakes up at 6:00 **a.m.**
2. He washes his face at 6:10 **a.m.**
3. He takes his breakfast at 7:05 **a.m.**
4. He goes to school at 7:30 **a.m.**
5. He comes back from school at 2:20 **p.m.**
6. He goes to play at 4:45 **p.m.**
7. He takes his supper at 8:30 **p.m.**
8. He watches TV at 9:00 **p.m.**
9. He goes to bed at 9:30 **p.m.**

Make your own timetable.

C. Write the time using a.m. or p.m.

1. 2 hours after 4:05 p.m.
2. 6 hours before 4:05 p.m.
3. 3 hours before 10:30 a.m.
4. 5 hours after 8:00 a.m.
5. 2 hours 30 minutes after and before 12:00 noon

Ans. **1.** 6:05 p.m. **2.** 10:05 a.m. **3.** 7:30 a.m.
4. 1:00 p.m. **5.** 2:30 p.m., 9:30 a.m.

D. Express the time using a 24-hour clock.

1. 5:00 a.m. **2.** 7:30 p.m. **3.** 6:45 a.m. **4.** 1:05 p.m.
5. 12:00 noon **6.** 12:00 midnight **7.** 10:50 a.m. **8.** 11:20 p.m.

Ans. **1.** 05:00 hours **2.** 19:30 hours **3.** 06:45 hours **4.** 13:05 hours
5. 12:00 hours **6.** 00:00 hours **7.** 10:50 hours **8.** 23:20 hours

E. Express the time using a 12-hour clock.

1. 06:00 hours **2.** 08:10 hours **3.** 15:00 hours **4.** 17:55 hours
5. 20:05 hours **6.** 00:30 hours **7.** 12:00 hours **8.** 00:00 hours

Ans. **1.** 6:00 a.m. **2.** 8:10 a.m. **3.** 3:00 p.m. **4.** 5:55 p.m.
5. 8:05 p.m. **6.** 12:30 a.m. **7.** 12:00 noon **8.** 12:00 midnight

EXERCISE 4.3

A. Find the duration between:

1. 3:40 p.m. and 6:20 p.m.
2. 7:05 a.m. and 7:45 a.m.
3. 8:15 a.m. and 1:30 p.m.
4. 6:50 p.m. and 3:12 a.m.
5. 2:20 a.m. and 5:10 p.m.
6. 12:08 a.m. and 4:17 p.m.

Ans. **1.** 2 hours 40 minutes **2.** 40 minutes **3.** 5 hours 15 minutes
4. 8 hours 22 minutes **5.** 14 hours 50 minutes **6.** 16 hours 9 minutes

B. Find the sum.

1. 20 min and 30 min
2. 4 h and 7 h
3. 35 sec and 45 sec
4. 1 h 10 min and 55 min
5. 2 h 20 min and 6 h 50 min
6. 10 h 35 min and 8 h 40 min
7. 10 min 25 sec and 30 min 48 sec
8. 40 min 15 sec and 15 min 40 sec

Ans. **1.** 50 min **2.** 11 h **3.** 1 min 20 s **4.** 2 h 5 min
5. 9 h 10 min **6.** 19 h 15 min **7.** 41 min 13 s **8.** 55 min 55 s

C. Find the difference.

1. 17 sec from 30 sec
2. 6 h from 12 h
3. 36 min from 55 min
4. 1 h 10 min from 3 h 25 min
5. 40 min 30 sec from 48 min 20 sec
6. 16 h 26 min from 18 h 15 min

Ans. 1. 13 s **2.** 6 h **3.** 19 min
4. 2 h 15 min **5.** 7 min 50 s **6.** 1 h 49 min

D. Solve the following problems.

1. A movie started at 5:15 p.m. and got over at 7:40 p.m. How long was the movie?

Ans. 2 h 25 min

2. The train left New Delhi at 10:40 a.m. and reached Lucknow at 4:25 p.m. Find the duration of the journey.

Ans. 5 h 45 min

3. The school opens at 8:10 a.m. and closes at 2:30 p.m. The lunch break is for 45 minutes. How long do the classes run?

Ans. 5 h 35 min

4. Anil studies for 2 hours 15 minutes, watches TV for 30 minutes and plays carom for 40 minutes. How much time does he spend on these activities?

Ans. 3 h 25 min

5. Raman plays for 50 minutes while Manan plays for 1 hour 25 minutes. Who plays more? How much more time?

Ans. Manan; by 35 minutes

EXERCISE 4.4

A. Fill in the blanks.

1. A week has **7** days.
2. There are **12** months in a year.
3. **4** weeks make a month and **52** weeks make a year.
4. There are 366 days in a **leap year**.
5. An extra day is added to the **February** month of a leap year.

B. Identify the leap year in the following.

1. 2012 **2.** 2015 **3.** 2024
4. 2100 **5.** 2400 **6.** 3000

Ans. 1. 2012 **3.** 2024 **5.** 2400

C. How many days are there from:

1. 16th May to 31st May?
2. 25th June to 20th July?
3. 15th August to 10th October?
4. 13th July to 1st November?

Ans. 1. 16 days **2.** 26 days **3.** 57 days **4.** 112 days

D. Solve the following problems.

1. Manvi joined her duty in an office on 1st September 2014. After 45 days, she transferred. Find the date of her last day in the office.

Ans. 15 October

2. Mr Verma went on tour on 25th December and came back on 8th January. For how many days was he on tour?

Ans. 14 days

3. Shreya's school closes on 5th May and reopens on 1st July for summer vacation. How long is her summer vacation?

Ans. 56 days

E. The information shows the date of birth of 5 classmates.

Name	**Date of Birth**
Rita	23rd September 2006
Pawan	7th December 2006
Ruchi	11th July 2006
Shobhita	18th March 2006
Prerna	5th April 2006

Study the information and answer the following questions:

1. Who is the eldest?

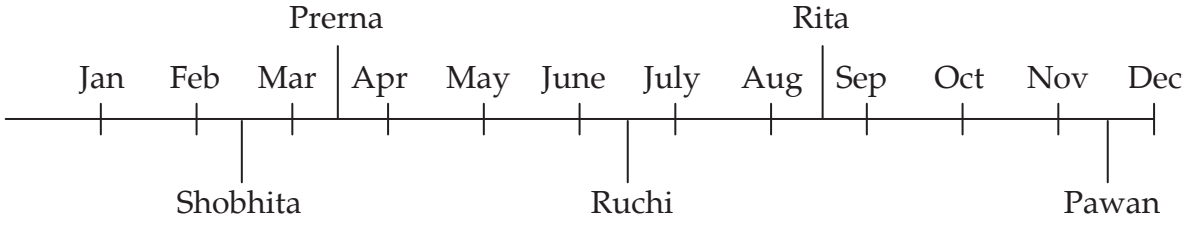
Ans. Shobhita

2. Who is the youngest?

Ans. Pawan

3. Make a timeline to show from the youngest to the eldest.

Ans.



4. Write the difference between the eldest and the youngest.

Ans. 264 days or 8 months 25 days

F. Here are some pages from the diary of Shridhi's father.

1. How old was Shridhi when she ate a banana?

Ans. 6 months 8 days or 191 days

2. How old was Shridhi when she started crawling?

Ans. 6 months 28 days or 211 days

3. How old was Shridhi when she joined play school?

Ans. 2 years 3 months 14 days

4. If 1st March 2012 was Thursday, find the day she was born.

Ans. Sunday

G. Edison was born in the year 1847. He invented the electric bulb in the year 1879. How old was he then?

Ans. 32 years

LIFE SKILLS

The following table shows arrival and departure timings of the train Garib Rath Express running between Saharsa Junction and Amritsar Junction. Study the table and answer the following questions:

Station Name	Arrival Time	Departure Time
Lucknow	06:00	06:10
Bareilly	09:27	09:30
Moradabad	10:55	11:00
New Delhi	13:45	14:00
Ambala cantt	16:40	16:45

Ludhiana	18:20	18:25
Jalandhar city	19:15	19:20
Beas	19:54	19:55
Amritsar	20:45	Destination

1. At what time does the train leave Lucknow?

2. At what time does the train reach New Delhi?

3. At what time does the train leave Ludhiana?

4. How much time is taken by the train to reach the destination from New Delhi?

5. At which station does the train halt for maximum time?

6. Rewrite the table above using a.m. and p.m.

Take a timetable of any train and discuss among your classmates.

Ans. **1.** 06:10 hours **2.** 13:45 hours **3.** 18:25 hours **4.** 6 hours 45 minutes **5.** New Delhi

6.

Station Name	**Arrival Time**	**Departure Time**
Lucknow	6:00 a.m.	6:10 a.m.
Bareilly	9:27 a.m.	9:30 a.m.
Moradabad	10:55 a.m.	11:00 a.m.
New Delhi	1:45 p.m.	2:00 p.m.
Ambala Cantt	4:40 p.m.	4:45 p.m.
Ludhiana	6:20 p.m.	6:25 p.m.
Jalandhar city	7:15 p.m.	7:20 p.m.
Beas	7:54 p.m.	7:55 p.m.
Amritsar	8:45 p.m.	Destination

PERIODIC TEST 3

A. State True or False.

1. 123546 > 123654 **2.** $\frac{5}{8} > \frac{5}{7}$ **3.** $\frac{6}{9} < \frac{2}{3}$

4. $0.4 = \frac{4}{10}$ **5.** $2.5 = 2 + \frac{5}{10}$

Ans. **1.** False **2.** False **3.** False **4.** True **5.** True

B. Tick (✓) the correct answer.

1. If 88647 – 10390 = 78257, then 10390 + 78257 =

(a) 88647 ✓ (b) 88467 ☐ (c) 78257 ☐ (d) 88674 ☐

2. 2 kg 5 g means

(a) 2.5 kg ☐ (b) 2.050 kg ☐ (c) 2.005 kg ✓ (d) 2.500 kg ☐

3. 8 cm 5 mm means

(a) 8.5 cm ☐ (b) 85 cm ☐ (c) 85 mm ☐ (d) both a, c ✓

4. 4225 mL =

(a) 4 L 225 mL ☐ (b) 4.225 L ☐

(c) both (a) and (b) ✓ (d) None of these ☐

5. 0.091 = _____

(a) $\frac{91}{10}$ ☐ (b) $\frac{91}{100}$ ☐ (c) $\frac{91}{1000}$ ✓ (d) $\frac{91}{10000}$ ☐

C. Fill in the blanks.

1. 124503 × **729281** = 729281 × 124503.

2. 762988 ÷ **762988** = 1.

3. 2:05 p.m. in a 24-hour clock is **14:05 hours**.

4. 08:30 hours is written as **8:30 a.m.** in a 12-hour clock.

5. 6 hours before 3:45 a.m. is **9:45 a.m.**.

D. Complete the expressions.

1. $\frac{8}{11} = \frac{16}{\boxed{22}}$

2. 1 hour + 10 minutes = 30 minutes + **40** minutes

3. $\frac{1}{4}$ of a day = **6** hours

4. 60 cm + **158** cm = 2 m + 18 cm

E. Simplify:

1. $\frac{4}{12} - \frac{5}{12} + \frac{7}{12}$ **2.** 246.5 – 64.521

3. 250 – 75 × 9 ÷ 3

Ans. 1. $\frac{6}{12}$ or $\frac{1}{2}$ **2.** 181.979 **3.** 25

F. The school opens at 8:10 a.m. and closes at 2:30 p.m. The lunch break is for 45 minutes. How long do the classes run?

Ans. 5 h 35 min

G. The cost of 1 L coke is ₹40. Find the cost of 250 mL and 4 L 750 mL.

Ans. ₹10, ₹190

5. Money—Profit and Loss

ANSWERS

PAGE 135

Three friends went to a supermarket and bought some items. Study their details and complete the table given below.

1.	**Rajesh** a soap for ₹16, a toothpaste for ₹35, two toothbrushes for ₹24 each and a comb for ₹7.50	Total cost **₹106.50**	Paid ₹120 Got back = **₹13.50**
2.	**Hari** 250 g tea @ ₹280 per kg, 2 kg sugar @ ₹36 per kg, 500 g ghee @ ₹400 per kg and a jam bottle for ₹40	Total cost **₹382**	Paid ₹500 Got back = **₹118**
3.	**Jatin** Two pens for ₹10.50 each, five notebooks for ₹12 each, a book for ₹89 and a geometry box for ₹75	Total cost **₹245**	Paid = **₹1000** Got back = ₹755

EXERCISE 5.1

A. Find profit or loss in the following.

1. C.P. = ₹100, S.P. = ₹120 **2.** C.P. = ₹200, S.P. = ₹230

3. C.P. = ₹1,020, S.P. = ₹900 **4.** S.P. = ₹1,500, C.P. = ₹1,800

5. S.P. = ₹600.50, C.P. = ₹550, overhead expense = ₹12.50

6. C.P. = ₹68,000, S.P. = ₹75,000, maintenance = ₹3,500

Ans. 1. Profit = ₹20 **2.** Profit = ₹30 **3.** Loss = ₹120 **4.** Loss = ₹300 **5.** Profit = ₹38

6. Profit = ₹3,500

B. Solve the following word problems.

1. Prashant bought a mobile phone for ₹2,500 and sold it for ₹2,670. Find his profit or loss.

Ans. Profit = ₹170

2. Sukanya bought a watch for ₹550 and sold it for ₹500. Find her profit or loss.

Ans. Loss = ₹50

3. Madhu bought an old table for ₹1,200. She spent ₹60 on its repairs and sold it for ₹1,500. Find her profit or loss.

Ans. Profit = ₹240

4. A farmer buys two oxen for ₹26,000. He sells one of them for ₹15,000 and another for ₹12,400. Find his total profit or loss.

Ans. Profit = ₹1,400

5. Aniket has a stationery shop. He buys a packet of 10 pencils worth ₹25 and sells each pencil at the rate of ₹3. How much profit does he get from one packet of pencils?

Ans. ₹5

6. A fruitseller buys 6 boxes of apples for ₹1,500 and pays ₹60 for transportation. Each box contains 5 kg apples. The fruitseller sells it at the rate of ₹60 per kg. Calculate his profit or loss.

Ans. Profit = ₹240

7. A flowerseller purchases 100 roses worth ₹3 for each rose. She makes bouquets of 10 roses and sells each bouquet at the rate of ₹50. Find her profit.

Ans. ₹200

8. A trader buys 40 kg cauliflower for ₹800. He sells 12 kg out of 40 kg at the rate of ₹25 per kg. He has to sell remaining at the rate of ₹18 per kg. Calculate his profit or loss.

Ans. Profit = ₹4

EXERCISE 5.2

A. Find the cost price in each of the following.

1. S.P. = ₹500, Loss = ₹25

2. S.P. = ₹1,600, Profit = ₹250

3. S.P. = ₹48.50, Profit = ₹7.50

4. S.P. = ₹3,000, Loss = ₹500

5. S.P. = ₹10,800, Profit = ₹1,200

Ans. **1.** ₹525 **2.** ₹1,350 **3.** ₹41 **4.** ₹3,500 **5.** ₹9,600

B. Find the selling price in each of the following.

1. C.P. = ₹370, Profit = ₹30

2. C.P. = ₹800.50, Profit = ₹175.50

3. C.P. = ₹2,000, Loss = ₹250

4. C.P. = ₹25,000, Loss = ₹7,500

5. C.P. = ₹48,500, Profit = ₹5,550

Ans. **1.** ₹400 **2.** ₹976 **3.** ₹1,750 **4.** ₹17,500 **5.** ₹54,050

C. Solve the following word problems.

1. A fruitseller buys some bananas at the rate of ₹30 per dozen. He wants to make a profit of ₹5 per dozen. At what price should he sell?

Ans. ₹35 per dozen

2. By selling a TV for ₹7,800, a shopkeeper earns a profit of ₹600. At what price does he buy the TV?

Ans. ₹7,200

3. Madhav sells a computer for ₹9,000 at a loss of ₹2,500. What is the cost price of the computer?

Ans. ₹11,500

4. Anand earns ₹1,600 by selling a laptop. If the cost price of the laptop is ₹36,000, find its selling price.

Ans. ₹37,600

5. A refrigerator was sold for ₹14,800 at a loss of ₹1,200. Find the cost price of the refrigerator.

Ans. ₹16,000

LIFE SKILLS

Rate list of a wholesale market

Vegetables (₹/kg)				Fruits (₹/kg)			
Onion	₹12	Peas	₹30	Apple	₹180	Watermelon	₹10
Potato	₹15	Tomato	₹24	Pear	₹140	Pineapple	₹60
Brinjal	₹18	Gourd	₹25	Papaya	₹35	Pomegranate	₹100
Radish	₹11	Lady's finger	₹40	Mango	₹45	Banana	₹40/dozen

Dinkar runs a shop named 'FRESH FRUITS & VEGETABLES'. He buys commodities from the wholesale market. He keeps a profit margin on the rates of these items and sells to the customers.

Rate list of FRESH FRUITS & VEGETABLES

Vegetables (₹/kg)				Fruits (₹/kg)			
Onion	₹15	Peas	₹35	Apple	₹210	Watermelon	₹16
Potato	₹18	Tomato	₹26	Pear	₹150	Pineapple	₹70
Brinjal	₹20	Gourd	₹30	Papaya	₹42	Pomegranate	₹120
Radish	₹12	Lady's finger	₹60	Mango	₹50	Banana	₹56/dozen

On a particular day, Dinkar sells onion 5 kg, potato 12 kg, radish 6 kg, peas 3 kg, tomato 4 kg, lady's finger 2 kg, gourd 6 kg, apple 500 g, pear 2 kg, papaya 8 kg, mango 10 kg, watermelon 15 kg, pomegranate 120 kg and banana 2 dozen.

Calculate his profit if ₹90 are other expenses.

Ans.

Item	Quantity	Cost price		Selling price	
		Rate/kg	Cost	Rate/kg	Cost
Onion	5 kg	₹12	₹60	₹15	₹75
Potato	12 kg	₹15	₹180	₹18	₹216
Radish	6 kg	₹11	₹66	₹12	₹72
Peas	3 kg	₹30	₹90	₹35	₹105
Tomato	4 kg	₹24	₹96	₹26	₹104
Lady's finger	2 kg	₹40	₹80	₹60	₹120
Gourd	6 kg	₹25	₹150	₹30	₹180
Apple	500 g	₹180	₹90	₹210	₹105
Pear	2 kg	₹140	₹280	₹150	₹300
Papaya	8 kg	₹35	₹280	₹42	₹336
Mango	10 kg	₹45	₹450	₹50	₹500
Watermelon	15 kg	₹10	₹150	₹16	₹240
Pomegranate	120 kg	₹100	₹12,000	₹120	₹14,400
Bananas	2 dozen	₹40/dozen	₹80	₹56/dozen	₹112
		Total	= ₹14,052	**Total**	= ₹16,865

Cost price = ₹14,052

Other expenses = ₹90

Total cost = ₹14,052 + ₹90 = ₹14,142

Selling price = ₹16,865

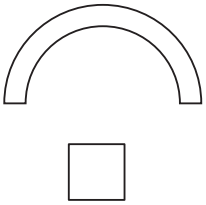
Profit = ₹16,865 – ₹14,142 = ₹2,723

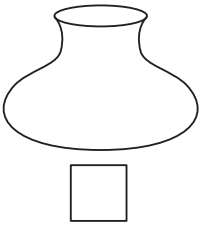
6. Symmetry and Patterns

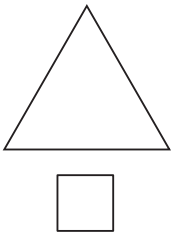
ANSWERS

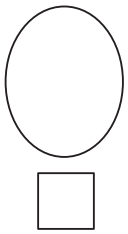
EXERCISE 6.1

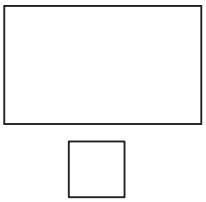
A. How many line(s) of symmetry can the following designs have?

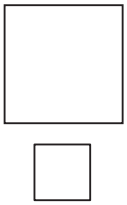
1. 

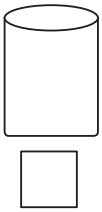
2. 

3. 

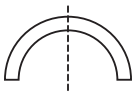
4. 

5. 

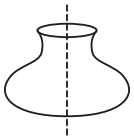
6. 

7. 

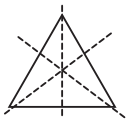
8. 

Ans. 1. 

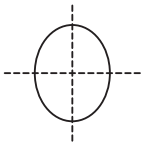
One

2. 

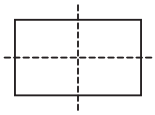
One

3. 

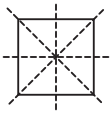
Three

4. 

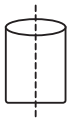
Two

5. 

Two

6. 

Four

7. 

One

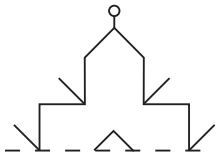
8. 

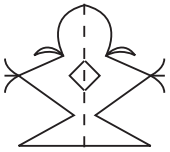
Zero

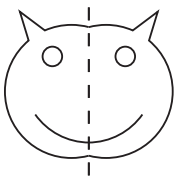
B. Complete the other half to make a symmetrical shape.

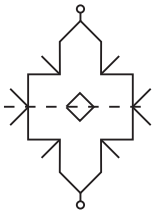
1. 

2. 

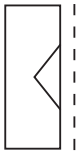
3. 

Ans. 1. 

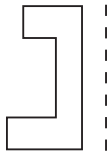
2. 

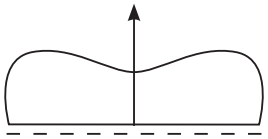
3. 

C. Draw the reflection of the following shapes.

1. 

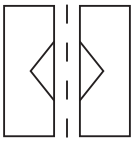
2. 

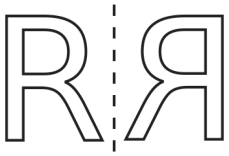
3. 

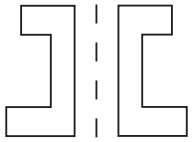
4. 

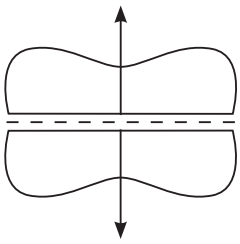
5. 

6. 

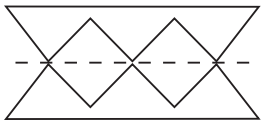
Ans. 1. 

2. 

3. 

4. 

5. 

6. 

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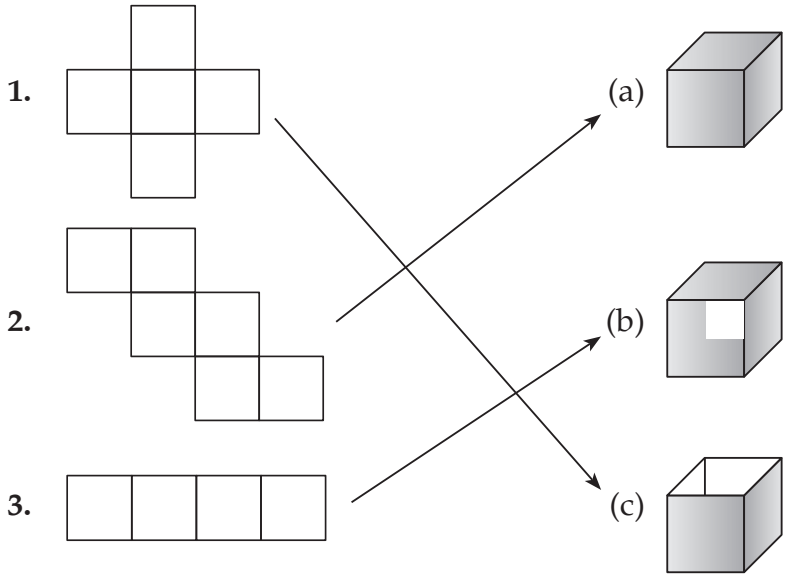
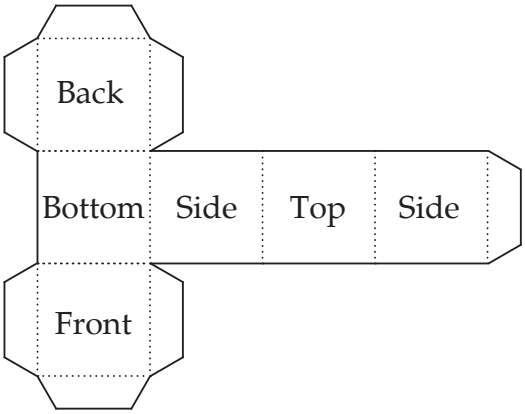
Match the nets with the solids.



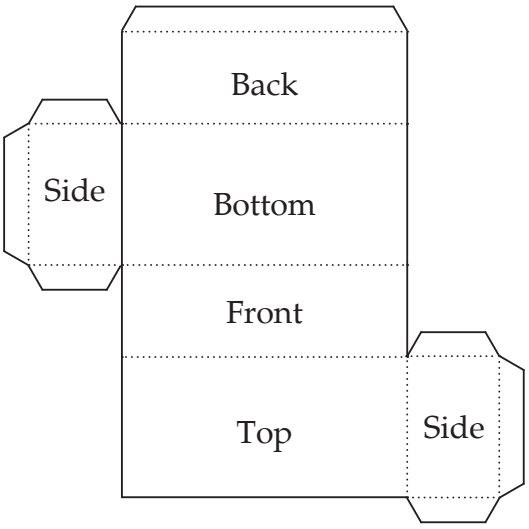
EXERCISE 6.2

A. Trace the following nets on the cardboard. Cut out along the boundary lines and then fold along the dotted lines to make a solid.

1.



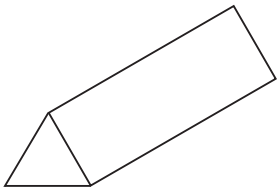
2.



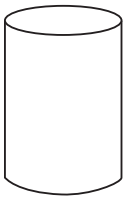
Ans. Do it yourself.

B. Draw the side view, plan and elevation of the following solids.

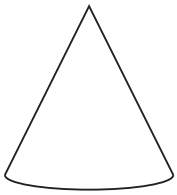
1.



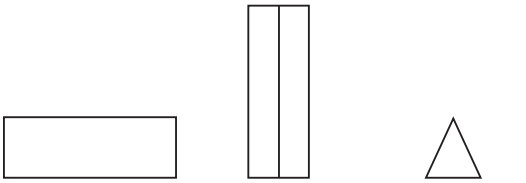
2.



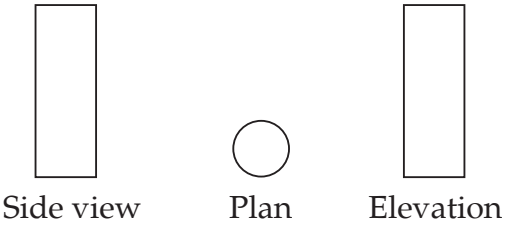
3.



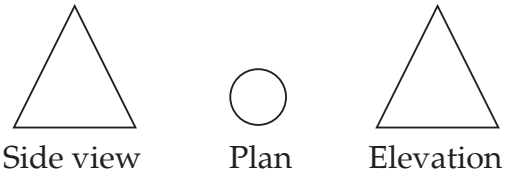
Ans. 1.



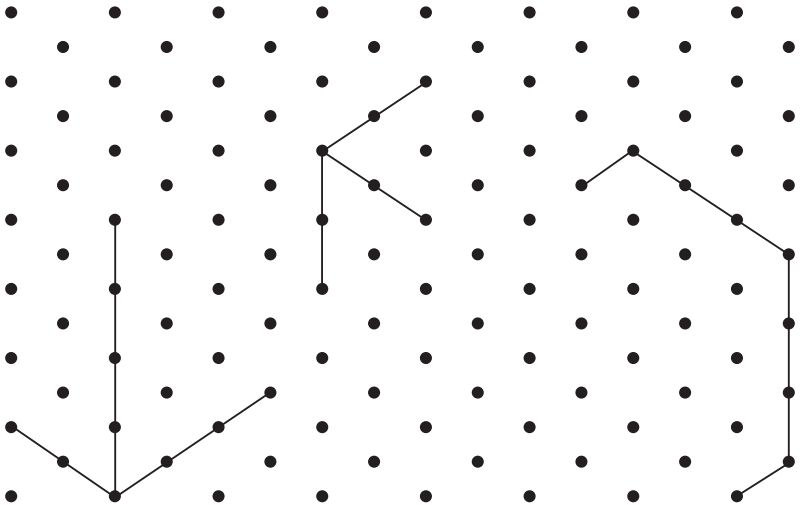
2.



3.



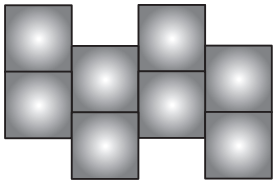
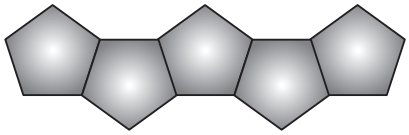
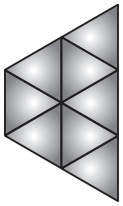
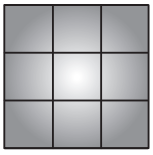
C. Complete the following drawing to make solids.



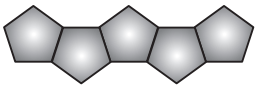
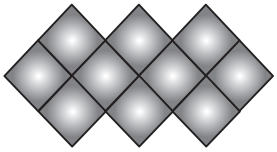
Ans. Do it yourself.

EXERCISE 6.3

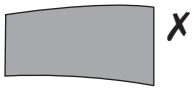
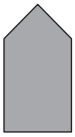
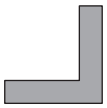
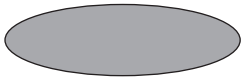
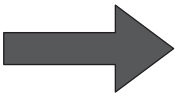
A. Draw the unit shape in the given tessellation.

1. 	
2. 	
3. 	
4. 	

B. Create a tessellation using the shape given below.

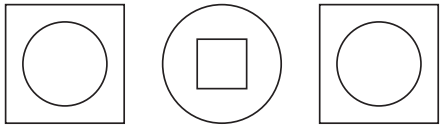
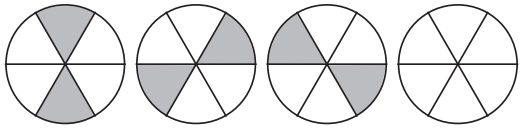
1.		
2.		
3.		
4.		

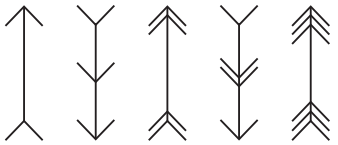
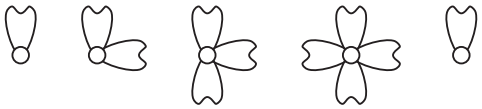
C. Tick (✓) the shapes that will tessellate. Cross out (✗) the shapes that will not tessellate.

1.  ✗	2.  ✓
3.  ✓	4.  ✓
5.  ✗	6.  ✓

EXERCISE 6.4

A. Observe and extend the patterns.

1.				
2.				

3.				
4.				

Ans. Do it yourself.

EXERCISE 6.5

A. Observe and extend the number patterns.

1. 110, 120, 130, 140, **150**, **160**, **170**, **180**

2. 1234, 2234, 3234, 4234, **5234**, **6234**, **7234**, **8234**

3. 965, 865, 765, 665, **565**, **465**, **365**, **265**

4. 1091, 1081, 1071, 1061, **1051**, **1041**, **1031**, **1021**

5. 1, 2, 4, 8, 16, **32**, **64**, **128**, **256**

6. 10, 30, 90, 270, **810**, **2430**, **7290**, **21870**

B. Observe the number patterns and fill in the blanks.

1. $1 + 2 + 3 + 4 + 5 = 15$
$2 + 3 + 4 + 5 + 6 = 20$
$3 + 4 + 5 + 6 + 7 =$ **25**
$4 + 5 + 6 + 7 + 8 =$ **30**
$5 + 6 + 7 + 8 + 9 =$ **35**

2. $1 - 2 + 3 - 4 + 5 - 6 + 7 = 4$
$2 - 3 + 4 - 5 + 6 - 7 + 8 = 5$
$3 - 4 + 5 - 6 + 7 - 8 + 9 =$ **6**
$4 - 5 + 6 - 7 + 8 - 9 + 10 =$ **7**
$5 - 6 + 7 - 8 + 9 - 10 + 11 =$ **8**

3. $1 \times 8 + 1 = 9$
$12 \times 8 + 2 = 98$
$123 \times 8 + 3 = 987$
$1234 \times 8 + 4 =$ **9876**
$12345 \times 8 + 5 =$ **98765**
$123456 \times 8 +$ **6** $= 987654$

4. $(10 - 1) \div 9 = 1$
$(100 - 1) \div 9 = 11$
$(1000 - 1) \div 9 = 111$
$(10000 - 1) \div 9 =$ **1111**
$(100000 - 1) \div 9 =$ **11111**
(**1000000 – 1**) $\div 9 = 111111$

C. 1. $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55$
$11 + 12 + 13 + 14 + 15 + 16 + 17 + 18 + 19 + 20 = 155$
$21 + 22 + 23 + 24 + 25 + 26 + 27 + 28 + 29 + 30 = 255$

_____

_____

Write the 5th and 8th rows of the number pattern.

Ans. 5th row: $41 + 42 + 43 + 44 + 45 + 46 + 47 + 48 + 49 + 50 = 455$
8th row: $71 + 72 + 73 + 74 + 75 + 76 + 77 + 78 + 79 + 80 = 755$

2. $1 = 1$

$1 + 3 = 4$

$1 + 3 + 5 = 9$

$1 + 3 + 5 + 7 = 16$

Write the next three rows of the given number pattern.

Ans. 5th row: $1 + 3 + 5 + 7 + 9 = 25$

6th row: $1 + 3 + 5 + 7 + 9 + 11 = 36$

7th row: $1 + 3 + 5 + 7 + 9 + 11 + 13 = 49$

3. $1 + 2 = 3 = \frac{3 \times 2}{2}$

$1 + 2 + 3 = 6 = \frac{4 \times 3}{2}$

$1 + 2 + 3 + 4 = 10 = \frac{5 \times 4}{2}$

Find the sum of:

(a) $6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15$

(b) $2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 + 20$

(c) $25 + 26 + 27 + 28 + 29 + 30 + 31 + 32 + 33 + 34 + 35$

(d) $10 + 20 + 30 + 40 + 50 + 60 + 70 + 80 + 90 + 100$

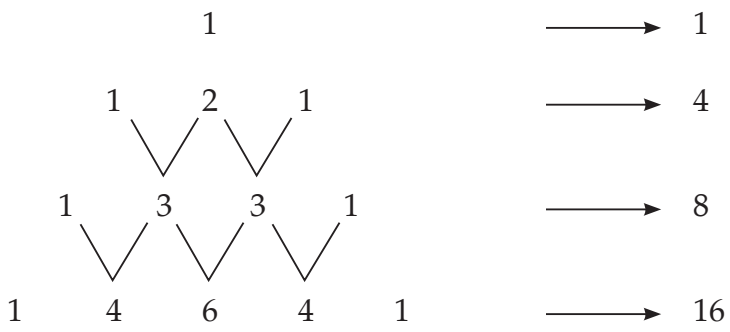
Ans. 4th row: $1 + 2 + 3 + 4 + 5 = 15 = \frac{6 \times 5}{2}$

5th row: $1 + 2 + 3 + 4 + 5 + 6 = 21 = \frac{7 \times 6}{2}$

(a) $\frac{16 \times 15}{2} - \frac{6 \times 5}{2} = 120 - 15 = 105$ (b) $2 \times \frac{11 \times 10}{2} = 110$

(c) $\frac{36 \times 35}{2} - \frac{25 \times 24}{2} = 630 - 300 = 330$ (d) $10 \times \frac{11 \times 10}{2} = 550$

4.



(a) Write the next two rows of the above pattern.

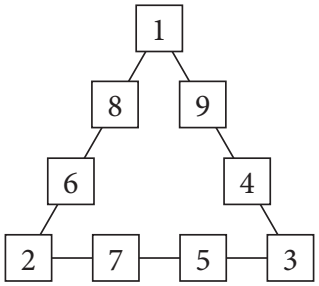
(b) What will the sum of the numbers in 7th row be?

Ans. (a) 5th row 1 5 10 10 5 1 → 32

6th row 1 6 15 20 15 6 1 → 64

(b) 128

D. Fill in the numbers from 1 to 9 in the boxes so that the numbers on each side give the total 17.



THINK AND ANSWER

1. Write the letters of the English alphabet that have:

(a) Vertical line of symmetry (b) Horizontal line of symmetry

(c) Both lines of symmetry

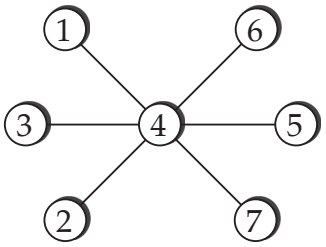
2. Write the numbers 0 to 9 and obtain their reflections.

Ans. **1.** (a) A, M, T, U, V, W and Y (b) B, C, D, E and K (c) H, I, O and X

2. 0|0, 1|ɪ, 2|ƨ, 3|Ɛ, 4|ㅓ, 5|ƍ, 6|ə, 7|ᄀ, 8|8, 9|ዖ

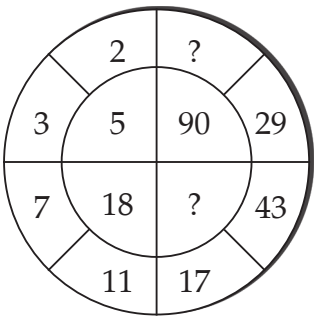
PUZZLE

1. Write the numbers 1 to 7 only once in the circles. The numbers in a line add up to 12.

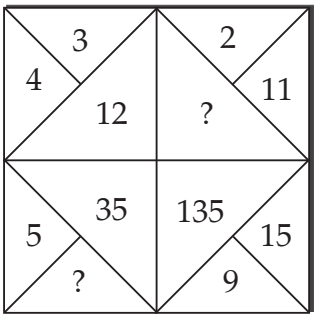


2. Find the missing numbers.

(a)



(b)



Ans. (a) As 2 + 3 = 5 and 7 + 11 = 18

So, 17 + 43 = $\boxed{60}$, 29 + $\boxed{61}$ = 90

(b) As 3 × 4 = 12 and 9 × 15 = 135

So, 5 × $\boxed{7}$ = 35 and 2 × 11 = $\boxed{22}$

3. Write the next five terms.

1, 1, 2, 3, 5, 8, 13, **21**, **34**, **55**, **89**, **144**

(**Rule:** Succeeding number is the sum of two numbers just before it.)

7. Data Handling

ANSWERS

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Students of Class 4 are asked to choose their favourite games. Names of games chosen by them are given below:

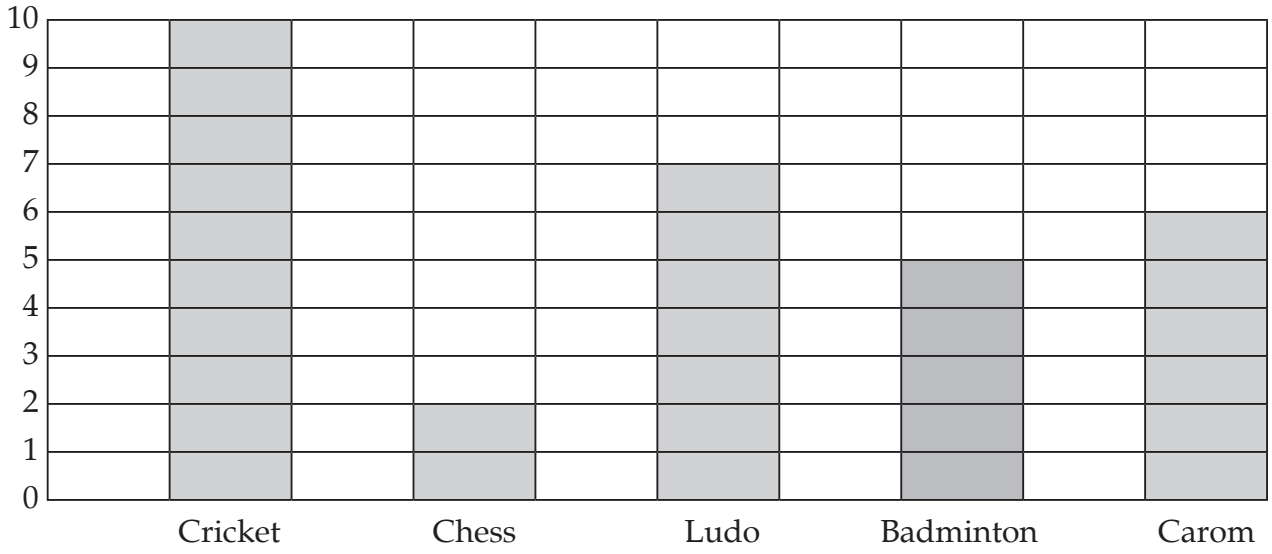
Carom	ludo	cricket	badminton	cricket	carom	chess	ludo	cricket	ludo	carom
cricket	badminton	chess	ludo	carom	cricket	cricket	badminton	ludo	carom	
badminton	ludo	cricket	cricket	cricket	carom	ludo	badminton	cricket		

Record the data using tally marks.

Ans.

Game	Badminton	Carom	Chess	Cricket	Ludo
Tally marks	𝍸	𝍸 |	| |	𝍸 𝍸	𝍸 | |
No. of students	5	**6**	**2**	**10**	**7**

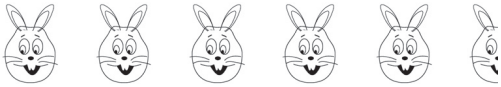
Now shade the blocks to show how many students liked which games.



EXERCISE 7.1

A. Study the pictographs and answer the following questions.

1. The pictograph below shows the types of animals in a zoo.

Zebra	
Lion	
Elephant	
Deer	
Monkey	
Each  stands for 2 animals.	

(a) How many lions are there in the zoo? **5**

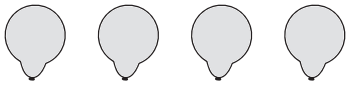
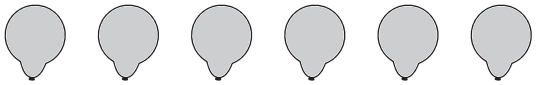
(b) How many zebras are there in the zoo? **8**

(c) How many more deer are there than monkeys? **3**

(d) How many fewer elephants are there than zebras? **4**

(e) How many animals are there in all? **42**

2. The following pictograph shows the different coloured balloons in a party room.

Yellow	
Red	
Green	
Pink	
Blue	
Each  represents 5 balloons.	

(a) How many yellow balloons are there in the party room? **20**

(b) How many pink balloons are there in the party room? **25**

(c) How many fewer blue balloons are there than red balloons? **10**

(d) Name the colour of balloons having the maximum number. **Red**

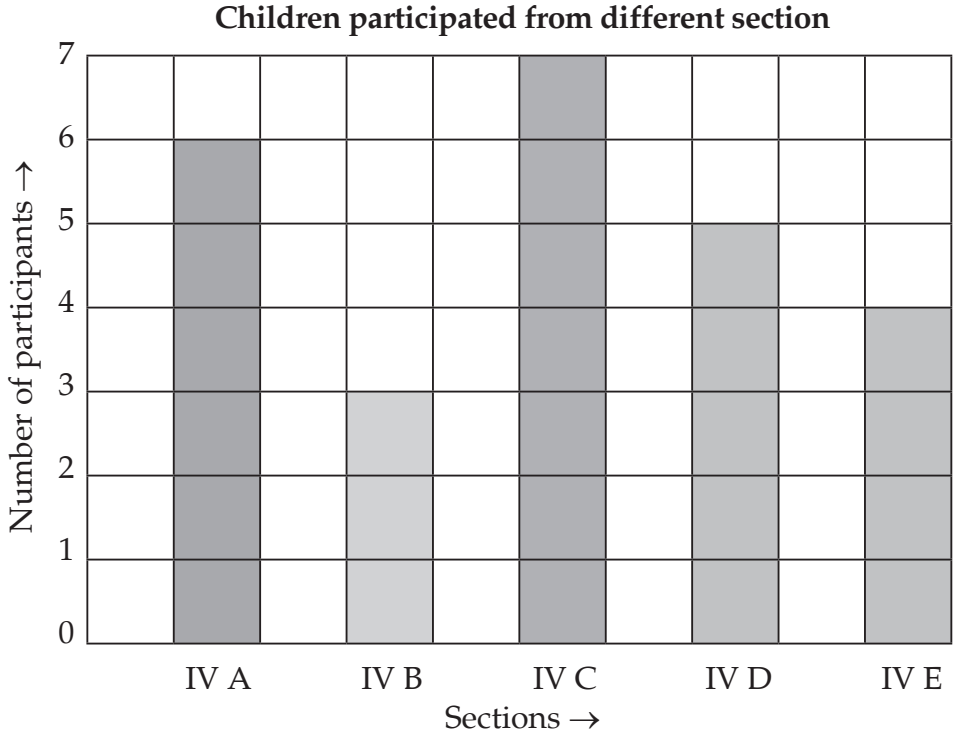
(e) Which coloured balloons are the least in number? **Green**

(f) Name the colours of balloons that are equal in number. **Yellow and Blue**

(g) What is the total number of balloons? **110**

B. Study the given bar graphs and answer the following questions.

1. The following bar graph shows the number of children participated from each section in a quiz contest.



(a) From which section, the minimum number of children participated? **IV B**

(b) From which section, the maximum number of children participated? **IV C**

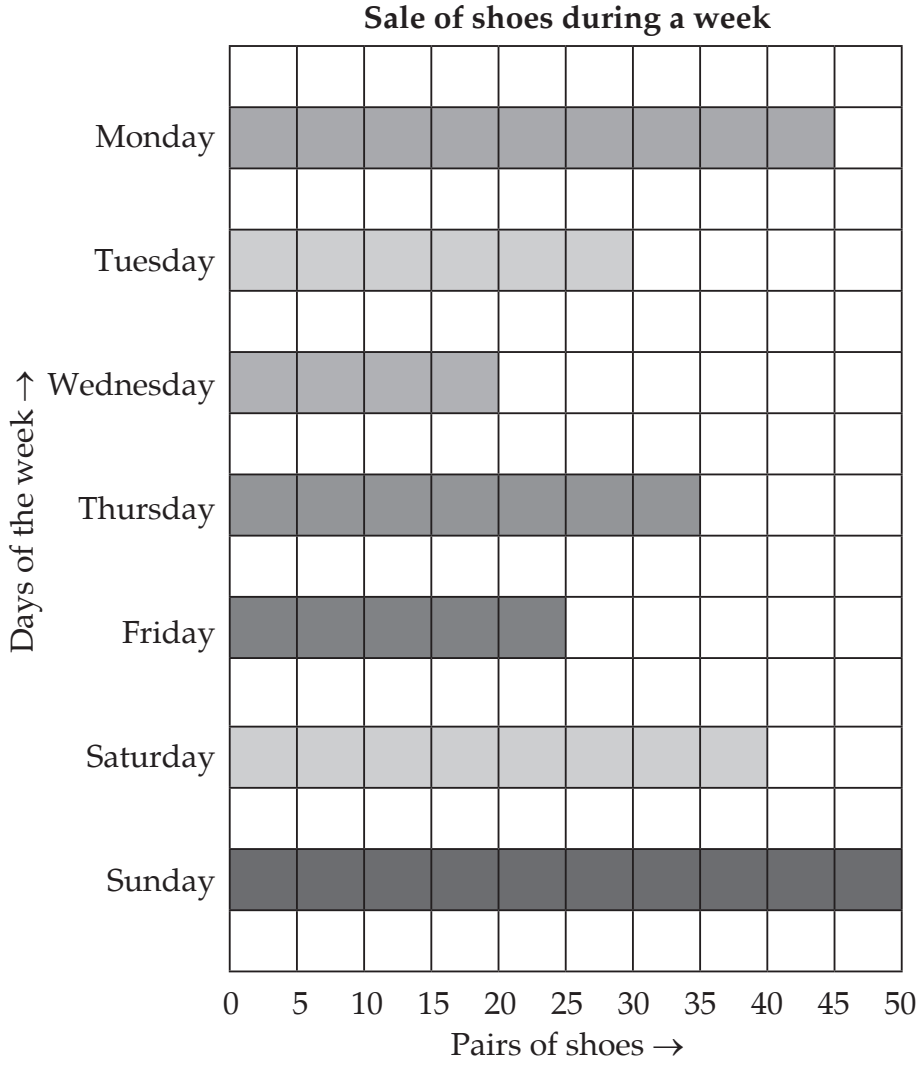
(c) From which section, only five children participated? **IV D**

(d) How many participants are there from section IV E? **4**

(e) How many more participants are there from IV C than from IV D? **2**

(f) How many fewer participants are there from IV B than from IV A? **3**

2. The following graph shows the sale of pairs of shoes in a showroom during a week.



(a) On which day, the minimum pairs of shoes were sold? **Wednesday**

(b) On which day, the maximum pairs of shoes were sold? **Sunday**

(c) How many pairs of shoes were sold on Thursday? **35 pairs**

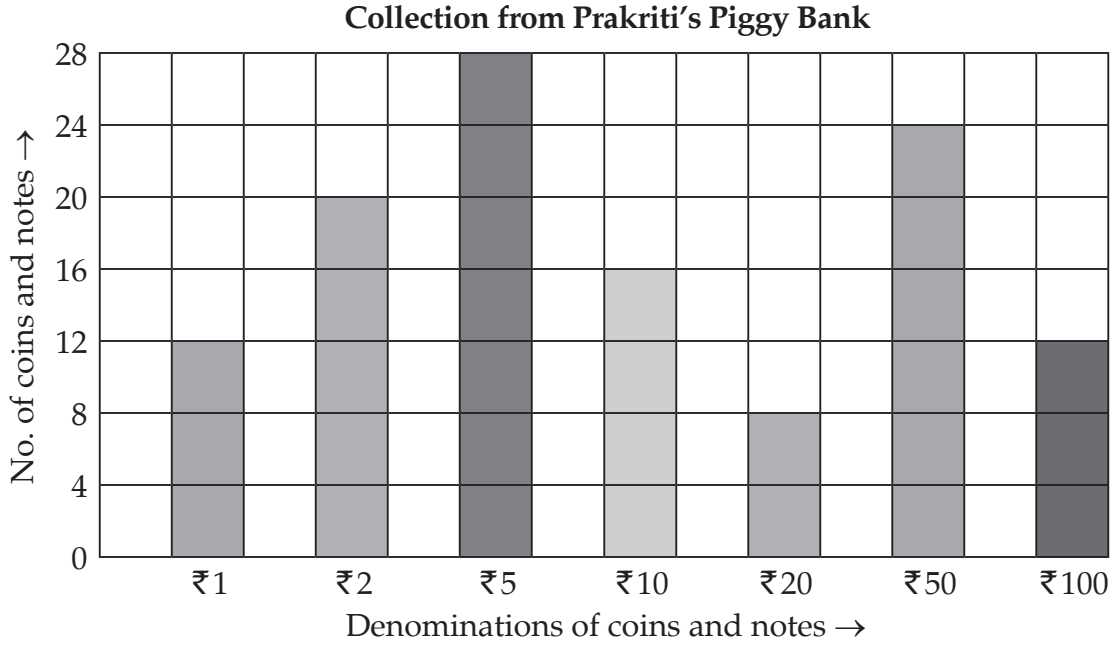
(d) What is the title of this bar graph? **Sale of shoes during a week**

(e) How many more pairs of shoes were sold on Saturday than on Friday? **15 pairs**

(f) Find the total number of pairs of shoes sold in the whole week. **245 pairs**

VALUE CORNER

On the occasion of Van Mahotsav, Prakriti wants to buy some saplings and pots for her school garden. She opens her piggy bank and displays her collection through a bar graph.



Study this graph and answer the following questions.

1. Which denomination of note or coin is the least in number?

Ans. ₹20

2. How much amount does she collects from the denomination of notes/coins below ₹10?

Ans. 12 × ₹1 + 20 × ₹2 + 28 × ₹5 = ₹192

3. How much money does Prakriti collect in all from her piggy bank?

Ans. ₹2912

4. She buys 25 saplings at the rate of ₹40 each. How much money she pays for this?

Ans. ₹1000

5. She buys 20 pots at the rate of ₹60 each. Is she left with money after paying the cost of pots? If yes, how much?

Ans. Pots' cost = ₹1200, Remaining = ₹ 712

6. Now, she has to buy 40 m long barbed wire to fence her school garden. The rate of the wire is ₹20 per m. Does she have sufficient amount to buy it? If not how much does she need more?

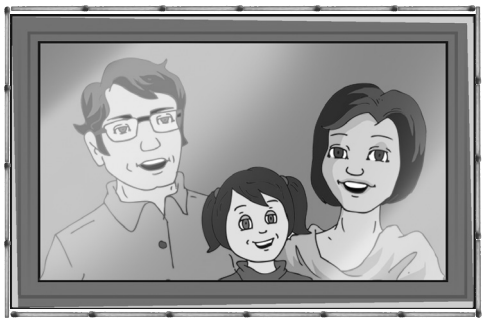
Ans. No; As the cost of barbed wire is ₹800, so, she needs, i.e., 800 – 712 = ₹88, more to buy it.

8. Perimeter and Area

ANSWERS

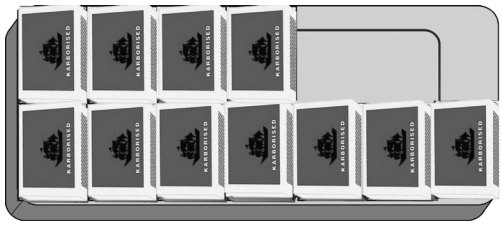
Page 163

A. Radha arranged matchsticks around a photograph of her family.



1. The length of this photograph is **6** matchsticks.
2. The width of this photograph is **4** matchsticks.
3. There are **20** matchsticks all around the photograph.
4. The boundary of this photograph is **20** matchsticks long.

B. Manisha wants to cover his geometry box with some empty matchboxes.

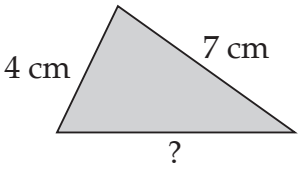


1. How many matchboxes does Manisha put on the geometry box? **11**
2. How many more matchboxes does she need to cover completely? **3**
3. In all, **14** matchboxes can cover the geometry box completely.
4. The area of this geometry is equal to the area of **14** matchboxes.

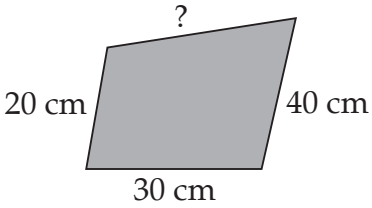
MENTAL TEST

Find the missing side of the following figures.

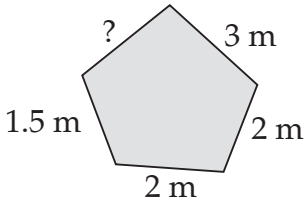
1. Perimeter = 20 cm



2. Perimeter = 130 cm



3. Perimeter = 11 m

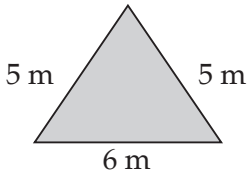


Ans. 1. 9 cm **2.** 40 cm **3.** 2.5 m

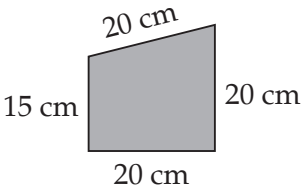
EXERCISE 8.1

A. Find the perimeter of each of the following figures.

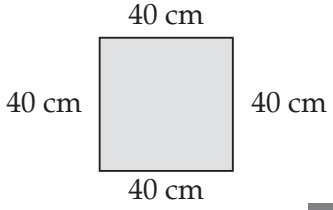
1.



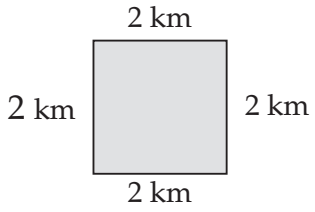
2.



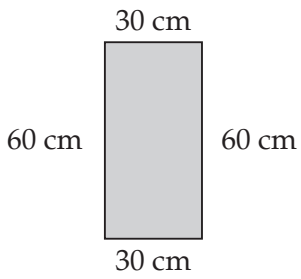
3.



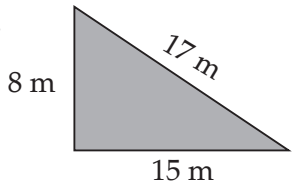
4.



5.



6.



Ans. **1.** 16 m **2.** 75 cm **3.** 160 cm
4. 8 km **5.** 180 cm **6.** 40 m

B. Find the perimeter of the rectangle whose:

1. Length = 5 m, breadth = 3 m **2.** Length = 65 cm, breadth = 25 cm
3. Length = 120 cm, breadth = 80 cm **4.** Length = 35 m, breadth = 20 m

Ans. **1.** 16 m **2.** 180 cm **3.** 400 cm **4.** 110 m

C. Find the perimeter of the square whose each side is:

1. 30 m **2.** 180 cm **3.** 48 m **4.** 75 cm

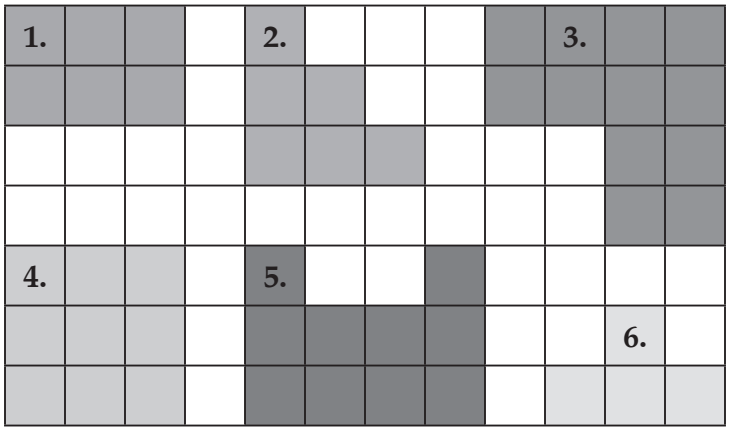
Ans. **1.** 120 m **2.** 720 cm **3.** 192 m **4.** 300 cm

D. Find the perimeter of the triangles whose sides are:

1. 3 m, 4 m, 5 m **2.** 12 cm, 16 cm, 18 cm
3. 15 m, 20 m, 30 m **4.** 24 mm, 36 mm, 40 mm

Ans. **1.** 12 m **2.** 46 cm **3.** 65 m **4.** 100 mm

E. Find the perimeter of the following figures. The squares drawn here have sides 4 cm long.



Ans. **1.** 40 cm **2.** 48 cm **3.** 64 cm
4. 48 cm **5.** 64 cm **6.** 40 cm

F. Solve the following word problems.

1. Megha wants to frame a picture which is 60 cm long and 40 cm wide. How much wooden stick will she need?

Ans. 200 cm long stick

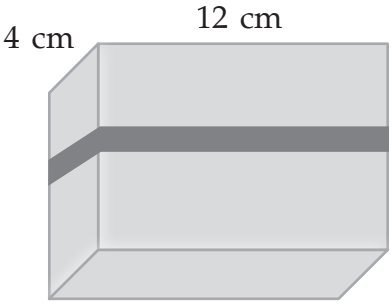
2. A playground is in the square shape with each side 120 m long. Find the length of the boundary wall that fences this ground.

Ans. 480 m

3. Lata runs along the sides of a triangular garden whose sides are 24 m, 36 m and 45 m. If she covers 60 cm in one step, how many steps will she take to run once round the garden?

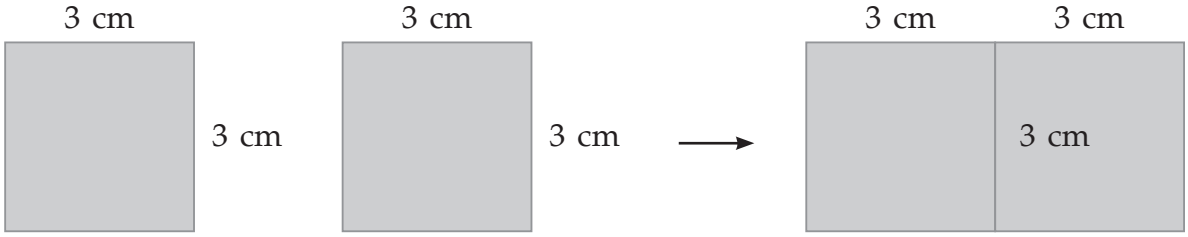
Ans. 175 steps

4. Anand has a tape 40 cm long. Will it be enough to tie once around this carton as shown?



Ans. Yes

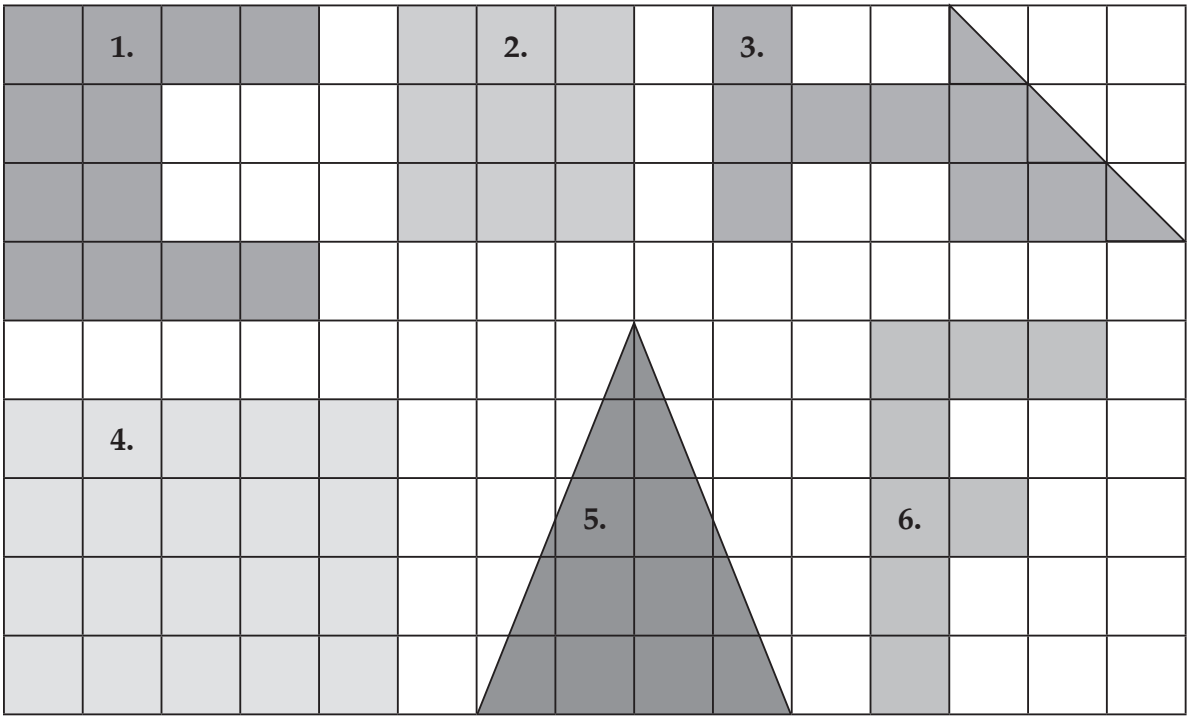
5. Two squares of side 3 cm each are joined side-by-side. Find the perimeter of the shape so formed.



Ans. 18 cm

EXERCISE 8.2

A. Find the area of the following figures drawn on 1 sq. cm squared paper.



Ans. **1.** 12 sq. cm **2.** 9 sq. cm **3.** $9\frac{1}{2}$ sq. cm **4.** 20 sq. cm **5.** 10 sq. cm **6.** 8 sq. cm

B. Complete the following table with the missing measurements of the rectangles.

S. No.	Length	Breadth	Perimeter	Area
1.	6 cm	4 cm	**20 cm**	**24 sq. cm**
2.	10 cm	**8 cm**	**36 cm**	80 sq. cm
3.	**18 m**	12 m	60 m	**216 sq. m**
4.	35 m	**15 m**	100 m	**525 sq. m**
5.	**60 km**	45 km	**210 km**	2700 sq. km

C. Calculate the area and perimeter of squares whose sides are:

1. 5 cm **2.** 20 cm **3.** 12 m **4.** 1 km

Ans. **1.** 25 sq. cm, 20 cm **2.** 400 sq. cm, 80 cm **3.** 144 sq. m, 48 m **4.** 1 sq. km, 4 km

D. Solve the following word problems.

1. A carpet measures 5 m long and 3 m wide. Find its area.

Ans. 15 sq. m

2. Each edge of a chessboard is 48 cm. Find the area of the board.

Ans. 2304 sq. cm

3. Total length of the wooden frame of a carom board is 320 cm. What is the length of each side? Find the area of the board.

Ans. 80 cm, 6400 sq. cm

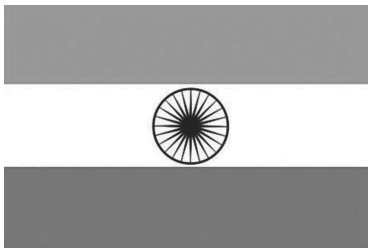
4. A ten-rupee note is 13.5 cm long and 6 cm wide. How much surface will it cover on a table top?

Ans. 81 sq. cm

5. A football field is 120 m long and 80 m wide. Find its perimeter and area.

Ans. 400 m, 9600 sq. m

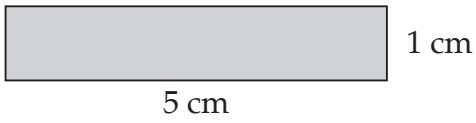
6. The national flag of India has three stripes of equal width. The side of the flag is 150 cm long and 1 m wide. Find the area of each stripe.



Ans. 5000 sq. cm

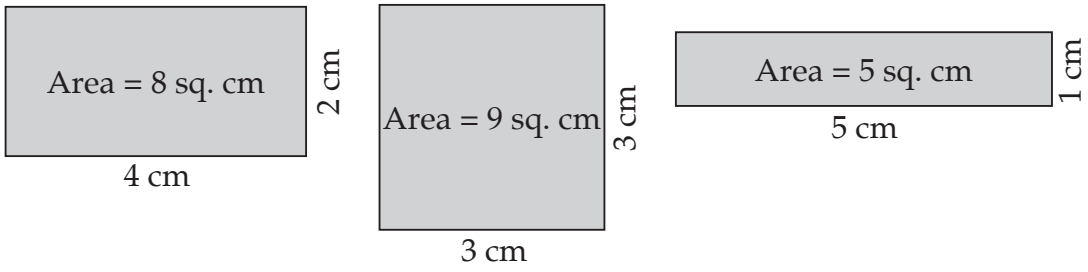
PUZZLE

1. Make different rectangles or squares having perimeter 12 cm. Find their areas. One is drawn here.



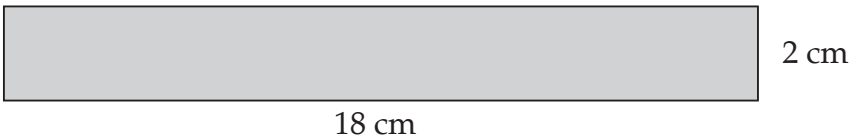
Are the areas equal? **No**

Ans.



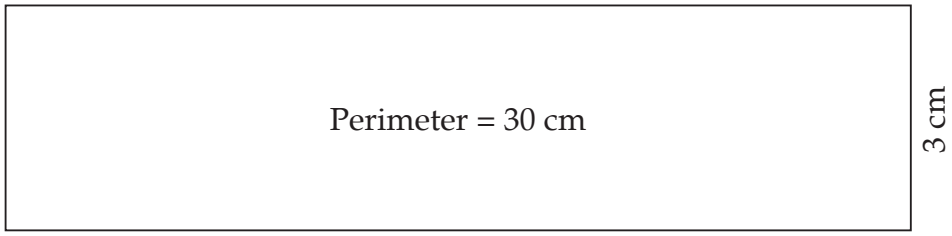
No

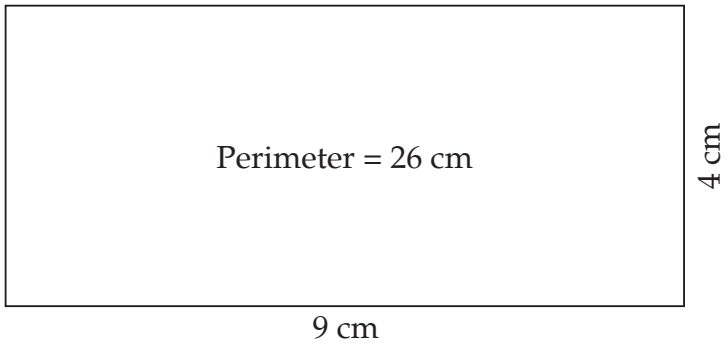
2. Make different rectangles or squares having area 36 sq. cm. One is drawn here. Find their perimeters.

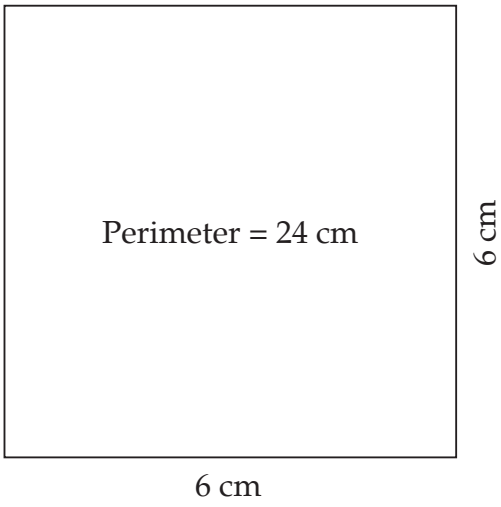


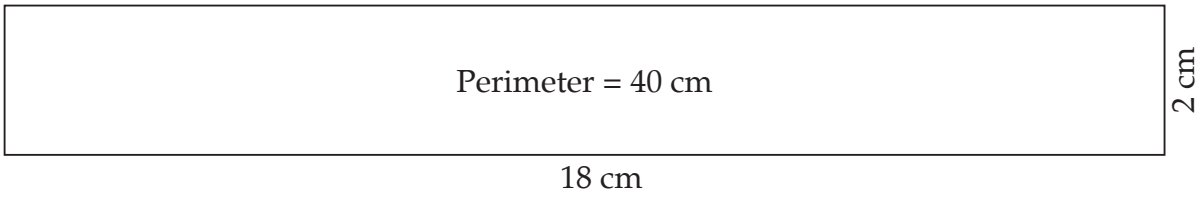
Are the perimeters equal? **No**

Ans.









No

MODEL TEST PAPER

A. Fill in the blanks.

1. 13,579 when rounded off to the nearest hundred is **13,600**.

2. 45,242 + 51,673 = 51,673 + **45,242**.

3. 67,548 – **0** = 67,548.

4. **4,250** × 100 = 4,25,000.

5. Factors of 16 are **1**, **2**, **4**, **8** and **16**.

6. A square has perimeter 4 cm. Its area will be **1 sq. cm**.

7. Each ✡ stands for 10 articles. ✡✡✡✡✡ stand for **35 articles**.

8. S.P. = C.P. + **profit**.

B. 1. Arrange the following numbers in ascending order.
42,568, 7,295, 1,23,546, 42,587, 9,028

Ans. 7,295, 9,028, 42,568, 42,587, 1,23,546

2. Subtract the sum of 12,345 and 66,805 from the difference of 1,00,000 and 9,999.

Ans. 10,851

3. Write all the pairs of twin-primes between 1 to 100.

Ans. 3, 5: 5, 7; 11, 13; 17, 19; 29, 31; 41, 43; 59, 61 and 71, 73

4. Find the LCM and HCF of 8 and 12.

Ans. L.C.M = 24, H.C.F = 4

C. Solve these.

1. 54,689 + 7,820 + 3,87,596

2. 426 × 235

3. 4,268 ÷ 21

4. 0.2 + 0.02 – 0.002

5. 1.5 – 5.06 + 13

Ans. 1. 4,50,105

2. 1,00,110

3. Q = 203, R = 5

4. 0.218

5. 9.44

D. Write the missing Hindu-Arabic and Roman Numerals.

Roman Numerals	XXV	**XLVIII**
Hindu-Arabic Numerals	**25**	48

E. Test the divisibility by

1. 2 : 421, 63, 596, 248 **2.** 5 : 395, 170, 624, 1000

Ans. 1. 596, 248 **2.** 395, 170, 1000

F. Write the following fractions in the simplest form.

1. $\frac{25}{35}$ **2.** $\frac{75}{100}$

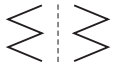
Ans. 1. $\frac{5}{7}$ **2.** $\frac{3}{4}$

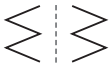
G. Convert:

1. 250 cm into m **2.** 25 minutes 40 seconds into seconds

Ans. 1. 2 m 50 cm **2.** 1540 sec

H. Identify the figures that show their reflections.

1.  **2.** 

Ans. 2. 

I. I have to pay ₹25 for first 1 km and ₹8 for each consecutive kilometre when I hire an autorickshaw. How much money will I have to pay for 5 km?

Ans. ₹ 57

J. A film show started at 5:35 p.m. and ended at 8:15 p.m. Find the duration of the film show.

Ans. 2 hours 40 minutes

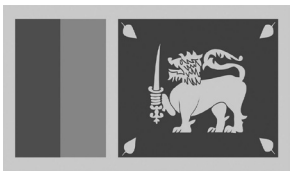
K. Mr Sinha has a table having top dimensions 1 m 80 cm by 1 m 20 cm. Find the area of the glass sheet to cover the top exactly.

Ans. 21,600 sq. cm or 2.16 sq. m

L. A fruitseller buys 5 dozen of oranges for ₹108. He gets 5 rotten oranges. Remaining oranges are sold by him at the rate of ₹2 each. How much does he gain or lose?

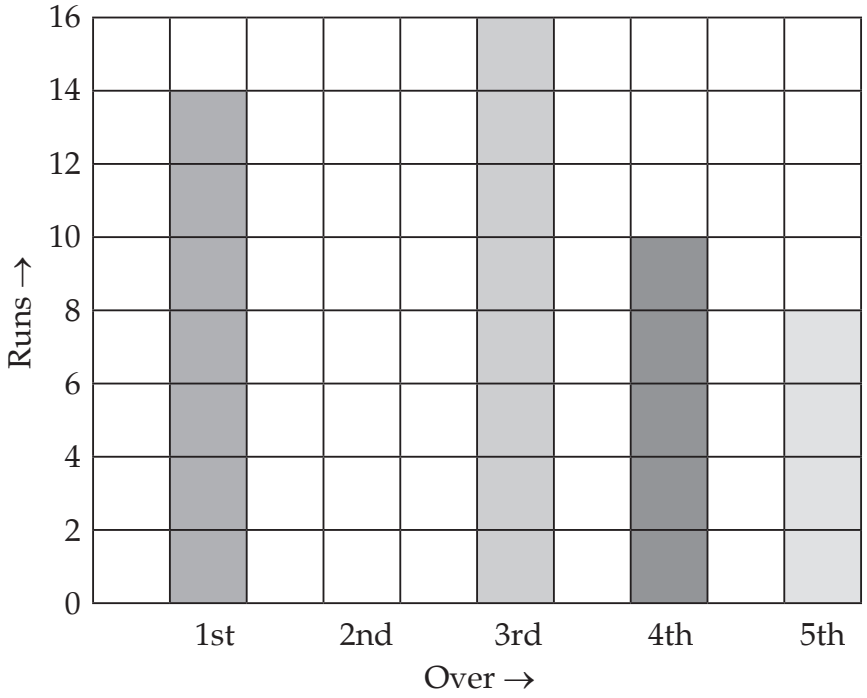
Ans. Gain = ₹2

M. How many lines of symmetry do the following flags have?

1.  **2.** 

Ans. 1. 2 **2.** 0

N. The given bar graph shows the runs scored in the first five overs of a T-20 cricket match.



1. In which over, were the maximum runs scored and how many?

2. How many runs were scored in the 2nd over?

Ans. **1.** 3rd over, 16 runs **2.** 0

SOCIAL STUDIES – 4

SEMESTER

2

Contents

1. India—Mineral Resources

ANSWERS

WARM UP

Winners of the Olympic Games are awarded three types of medals. Can you tell what they are made of? Look at the pictures of the medals and write the metal they are made of.

1. Silver
2. Gold
3. Bronze

CHECKPOINT

Fill in the blanks with information from the text.

1. Metals are derived from ores.
2. The process of taking out minerals from the Earth is called mining.
3. The process of separating minerals from ore is called smelting.
4. Bauxite is the ore of aluminium.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. It has minerals as a component.
   (a) Air ☐ (b) Water ☐ (c) Rock ✓
2. Metallic minerals include
   (a) iron ✓ (b) coal ☐ (c) CNG ☐
3. Nonmetallic minerals include
   (a) iron ☐ (b) coal ✓ (c) aluminium ☐
4. To make dry cell batteries, we use
   (a) gold ☐ (b) silver ☐ (c) manganese ✓

B. Give an example of each.

1. A utensil made of iron — Frying pan
2. A vehicle whose body is made of aluminium — Aeroplane
3. An iron ore producing area in India — Odisha
4. A coal producing area in India — West Bengal
5. An oil refinery centre in India — Digboi, Assam

C. Answer these questions.

1. What is a mineral ore?

Ans. A rock which is rich in one mineral is called the ore of that mineral.

2. Minerals are divided into two groups. Name them and give two examples for each of them.

Ans. (i) Metallic mineral — (a) iron (b) copper.

(ii) Non-metallic mineral — (a) mica (b) limestone.

3. Name any two main iron ore producing states in India.

Ans. Jharkhand and Odisha.

4. Name any two places in India where oil refineries are located.

Ans. Barauni, Bihar and Gujarat Refinery, Gujarat.

5. Name any two big iron and steel plants in India.

Ans. Tisco & IISCO.

THINK AND ANSWER

D. How can you save energy at your home? List three ways.

Ans. (i) Switch off fans when not in use.

(ii) Use solar energy.

(iii) Use CFL.

LET US DO

E. Project

Sometimes, more than one metal is mixed together in a certain amount to make a new metal. The new metal is called an alloy. With the help of the Internet, write the names of two alloys and their uses.

Ans. Do if yourself.

F. Survey

Write 'R' for the things that can be reused.

(R)

(R)

VALUE CORNER

G. You need to boil some potatoes. What process will you follow? Tick (✓) the energy-saving process.

(a) Boil in an open pan ☐

(b) Boil in a pressure cooker ✓

LIFE SKILLS

H. While buying an electric home appliance, what features will you consider?

Ans. Hint: Consumption of electricity.

2. India—Human Resources

ANSWERS

WARM UP

Tick (✓) the right answer. To progress, India needs

1. healthy, unskilled human resources ☐
2. unhealthy, skilled human resources ☐
3. healthy, skilled human resources ✓

CHECKPOINT

Tick (✓) the correct statement.

1. Each and every person is considered a human resource in a country. ☐
2. Anyone can run a machine. ☐
3. For progress, every nation must take care of human resources. ✓
4. The population in India is growing at a rapid rate. ✓

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Educated and skilled people are considered a
   (a) machine ☐ (b) burden ☐ (c) resource ✓
2. India has _____ per cent of the total population of the world.
   (a) 16 ✓ (b) 18 ☐ (c) 25 ☐
3. This is a thickly populated State of India.
   (a) West Bengal ✓ (b) Nagaland ☐ (c) Rajasthan ☐
4. About half of the total population of India is
   (a) rich ☐ (b) poor ✓ (c) very rich ☐
5. The rapid growth of population in India is creating
   (a) problems ✓ (b) prosperity ☐ (c) progress ☐

B. Fill in the blanks with information from the text.

1. About _____70_____ per cent of the our population lives in villages.
2. There are more than _____30_____ cities in India whose population is more than ten lakhs.
3. The ___population___ of India is growing at a rapid rate.

C. Answer these questions.

1. What is the importance of human resources?

Ans. Human resource that is healthy and educated can turn other resources useful.

2. Discuss the pattern of population distribution in India.

Ans. The population in our country is not evenly distributed. Some areas are very thickly populated and some are sparsely populated. The average density of population (2011 provisional) in our country is about 382 persons per square kilometre. It is very high in comparison to the world's average density, which is only 45 persons per square kilometre.

The thickly populated States are Uttar Pradesh, Bihar, Maharashtra, West Bengal and Andhra Pradesh. About half of the total population of India lives in these States. The sparsely populated regions are the desert in Rajasthan, the hilly areas in the northern and north-eastern States and parts of the Deccan Plateau.

3. Give two reasons for poverty in our country.

Ans. Huge population and lack of resources.

4. What problems are created by the rapid growth of population?

Ans. The rapid growth of population creates many problems such as shortage of food, water, housing, schools, hospitals and employment. About half of the total population of India is very poor. It does not have enough to eat. It consists of big families whose income is limited.

5. What are the problems of Metro cities in India?

Ans. Overpopulation; lack of space.

THINK AND ANSWER

D. Do you think education has an important role in making a man a resourceful human being? Discuss the idea of Swami Vivekananda on education in the light of the above question.

Education is the manifestation of the perfection already existing in man—Swami Vivekananda.

Ans. Do it yourself.

LET US DO

E. Discuss

How is rapid growth in population affecting India's development?

Ans. Do it yourself.

VALUE CORNER

F. Tick (✓) your view.

The government of a country should control/ignore the growth of population.

Ans. Control.

3. India—Agriculture

ANSWERS

WARM UP

Name this famous scientist. He is called the 'Father of the Green Revolution' in India.

Dr. M.S. Swaminathan

CHECKPOINT

Answer these questions.

1. Which is the most important occupation in India?

Ans. Agriculture.

2. Name a Kharif crop grown in India.

Ans. Rice.

3. What is the rank of India in the world in producing rice?

Ans. India ranks second in rice production.

4. Name a plantation crop.

Ans. Tea.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Wheat is cultivated in

(a) the kharif season ☐ (b) the rabi season ☑ (c) both seasons ☐

2. Gram is included in

(a) millets ☐ (b) pulses ☑ (c) cash crops ☐

3. It is called the 'golden fibre'.

(a) Wool ☐ (b) Cotton ☐ (c) Jute ☑

4. The Blue Revolution is associated with

(a) foodgrains ☐ (b) fishes ☑ (c) cattle ☐

B. Match the columns.

Column A	Column B
1. Kharif season	(a) West Bengal, the largest producer
2. Rabi season	(b) groundnut
3. Rice	(c) oilseeds
4. Spices	(d) Green Revolution
5. Progress in agriculture	(e) Kerala and Karnataka

C. Answer these questions.

1. Differentiate between the kharif and rabi seasons. Give two crops of each season.

Ans. The kharif season begins with pre-monsoon showers. The main kharif crops are rice, maize, millets, pulses, groundnut, cotton and jute.

The rabi season begins when the rainy season is over. The main rabi crops are wheat, gram, mustard, barley and oilseeds.

2. What is agriculture?

Ans. Agriculture includes the cultivation of crops, horticulture, rearing of animals and fishing.

3. What is the Green Revolution?

Ans. In India, there has been continuous progress in agriculture. This is due to improved irrigation facilities, improved seeds, high use of fertilisers, manures and pesticides. This continuous progress in agriculture production is called the Green Revolution.

4. What climatic conditions are required for growing wheat?

Ans. Wheat needs a cool and moist climate at the time of sowing and growing. The warm and dry climate is useful at the time of harvesting. Wheat grows well in Punjab, Haryana, western Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan, Gujarat and Maharashtra.

THINK AND ANSWER

D. Why is rice a staple food in India?

Ans. Hint: Rice is produced in large quantity.

LET US DO

E. Activity

Find out the names of different crops in the word grid. Collect a picture of each of them and paste it in your scrapbook.

C	O	T	T	O	N	X	W	T	U
P	I	T	Z	X	Y	W	H	R	P
L	L	J	N	M	T	U	E	X	Z

C	S	U	G	A	R	C	A	N	E
R	E	T	L	I	J	O	T	E	A
P	E	E	M	Z	K	F	U	V	W
Q	D	R	N	E	L	F	X	Y	Z
Z	S	T	G	H	M	E	T	O	O
P	L	M	N	O	P	E	T	U	V

VALUE CORNER

F. Agriculture, in India, solely depends on nature, especially the rainfall. Farmers take lots of pain to produce foodgrains. So, you should never waste food. Wasting food is an insult to the farmers.

Ans. Do it yourself.

LIFE SKILLS

G. If a farmer wants to know from you what crop he should grow in his field, what questions will you ask him before giving him your suggestion?

Ans. Hint: 1. Where does he live?

2. What is the type of soil?

3. What type irrigation system is he using?

4. What is the size of land?

4. India—Industries

ANSWERS

WARM UP

Match the companies with their logos.

Company	Logo
1. Ashok Leyland	(a)
2. SAIL	(b)
3. MMTC	(c)
4. Maruti Suzuki	(d)

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. This industry is agro-based.

(a) Sugar [✓] (b) Chemical [ ] (c) Iron and steel [ ]

2. Which one is not a raw material?

(a) Cloth [✓] (b) Cotton [ ] (c) Gold [ ]

3. Which city is not a major industrial region?

(a) Bengaluru [ ] (b) Chennai [ ] (c) Ayodhya [✓]

4. Handloom weaving is a part of

(a) small-scale industries [ ]

(b) cottage industries [✓]

(c) large-scale industries [ ]

B. Name two places where these industries have developed.

1. Cotton textile:	(a) Ahmedabad	(b) Varanasi
2. Automobile:	(a) Mumbai	(b) Gurgaon (Gurugram)
3. Iron and steel:	(a) Jamshedpur	(b) Durgapur
4. Aircraft:	(a) Bengaluru	(b) Nashik
5. Fertiliser:	(a) Nangal	(b) Sindri

C. Write short notes on the following.

1. Large-scale industries

Ans. Large-scale industries require big power-driven plants and employ a large number of skilled and unskilled workers. The production of finished goods is also on a large scale. Examples of large-scale industries are iron and steel plants, textile mills, oil refineries, automobile industry, chemical plants, etc. They play an important role in the development of the country.

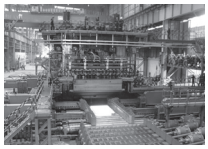
2. Agro-based industries

Ans. An agro-based industry is an industry that uses agricultural products as raw materials. Important agro-based industries are cotton textiles, woollen textiles, silk textiles, jute textiles, sugar, vegetable oil, food processing, etc.

3. Household industries

Ans. The household industry is also called the collage industry. It is run by family members. They use locally available raw materials, such as wood, cane, brass, clay, stone, etc. They use simple tools. Carpet weaving, handloom, handicrafts, leather goods, toy making basket making, etc., are cottage industries.

D. Guess what type of industries these are. Write their names.



1. Large-scale

2. Agro-based

3. Cottage

E. Answer these questions.

1. What is a manufacturing industry?

Ans. The process of converting raw materials into useful finished goods is called manufacturing. Manufacturing is done by an industry.

2. How are large-scale industries different from small-scale industries?

Ans. Large-scale Industries require big power-driven plants and employ a large number of skilled and unskilled workers. The production of finished goods is also on a large scale. Examples of large-scale industries are iron and steel plants, textile mills, oil refineries, automobile industry, chemical plants, etc. They play an important role in the development of the country.

Small-scale industries employ a few workers and produce mostly consumer goods. They also use small machines. The factories are also small. The factories producing garments, automobile parts, hosiery goods, plastic goods, furniture, utensils, electrical appliances and leather goods are included in small-scale industries.

3. Distinguish between agro-based and mineral-based industries.

Ans. India has both agro-based industries and mineral-based industries. An agro-based industry is an industry that uses agricultural products as raw materials. Important agro-based industries are cotton textiles, woollen textiles, silk textiles, jute textiles, sugar, vegetable oil, food processing, etc.

A mineral-based industry is an industry that uses minerals as raw materials. Important mineral-based industries are iron and steel, transport equipment, machine tools,

cement, fertilisers and chemicals.

4. What are the main features of the cottage industry?

Ans. The cottage industry is also called the household industry. It is run by family members. They use locally available raw materials, such as wood, cane, brass, clay, stone, etc. They use simple tools. Carpet weaving, handloom, handicrafts, leather goods, toy making, basket making, etc., are cottage industries. The cottage industry needs less investment (capital) and manpower.

5. Which factors influence the establishment of an industry?

Ans. Industries grow where the raw materials, source of power and markets are easily available.

THINK AND ANSWER

F. Imagine that you want to set up a schoolbag-making industry. What necessary things will you need for that? Write them down.

Ans. Raw materials, capital, labour and market.

LET US DO

G. Activity

Fill in the table with information collected with the help of the Internet.

Name of Countries	Automobile Industries	IT Industries
UK	Birmingham	London
USA	Detroit	Silicon Valley (California)
Germany	Berlin	Berlin
Japan	Nagoya	Ota
Russia	Moscow	Moscow

LIFE SKILLS

H. All types of industries cause pollution. Some of them like thermal power, leather and cement industries cause too much pollution. These industries should be set up far away from human settlements.

Ans. Do it yourself.

5. India—Transport and Communication

ANSWERS

WARM UP

Name the road that connects Delhi-Kolkata-Chennai-Mumbai-Delhi. Collect a picture of the road and paste it here.

Ans. Golden Quadrilateral.

CHECKPOINT

Fill in the blanks with information from the text.

1. The first train steamed off from Bombay to ____Thane____ in 1853.
2. The Indian Railways are divided into _____16_____ zones.
3. _____Air_____ transport was started in India in 1911.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Which of the following brings people closer?
   (a) Communication [✓] (b) Ocean [ ] (c) Space [ ]
2. The Shatabdi Express is a
   (a) local train [ ] (b) goods train [ ] (c) superfast train [✓]
3. In India, the national television broadcasting service is
   (a) Zee TV Channel [ ] (b) Discovery channel [ ] (c) Doordarshan [✓]

B. Fill in the blanks with information from the text.

1. ___Waterways___ is the most suitable means for transporting heavy goods.
2. ____Airways____ is the fastest means of travel.
3. ____Tankers____ carry oil and petroleum products.
4. We use ____Internet____ to send an e-mail.

C. Answer these questions.

1. How did early man transport goods?

Ans. Early man carried goods himself. Later on, he used animals to carry the goods.

2. What does the National Highway Authority of India (NHAI) do?

Ans. NHAI builds and maintains national highways.

3. Where and when did the first train service start in India?

Ans. Mumbai to Thane. The train service started in 185**3.**

4. Which cities of India have the metro rail service?

Ans. Kolkata, Delhi, Mumbai and Bengaluru.

5. What role do newspapers and magazines play?

Ans. They bring us information about the different events happening in the world.

THINK AND ANSWER

D. Why are the railways considered a lifeline of the Indian transport system? Discuss in the class. If possible, collect some necessary data and information.

Ans. Hint: Railways carry lakhs of people and lakhs of tonnes of goods every day.

LET US DO

E. Project

Find out why the telegram was discontinued in our country.

Ans. Hint: Due to technological advancement, it became outdated.

VALUE CORNER

F. Try to use a bicycle as far as possible because it does not cause any pollution and cycling is a good exercise.

LIFE SKILLS

G. You are supposed to book a ticket for travelling from Mumbai to Chennai. You went to the railway ticket reservation counter. But, you learnt that all the seats had been booked earlier and there was no seat for you. Outside the counter, you met a stranger who said that he would give you a ticket for the said journey. What should you do? Discuss in the class.

Ans. Hint: I should not buy tickets from an unauthorised person.

PERIODIC TEST 3

A. Tick (✓) the correct answers.

1. Which of the following is not a Union Territory?

(a) Chandigarh [ ] (b) Puducherry [ ] (c) Sikkim [✓]

2. Which one affects the climate of an area?

(a) Mountain [✓] (b) Seaport [ ] (c) Airport [ ]

3. India has _____ per cent of the total population of the world.

(a) 16 [✓] (b) 18 [ ] (c) 25 [ ]

4. Wheat is cultivated in

(a) the kharif season [ ] (b) the rabi season [✓] (c) both seasons [ ]

5. Which of the following is not a raw material?

(a) Cloth [✓] (b) Cotton [ ] (c) Gold [ ]

B. Fill in the blanks.

1. The Garhwal and ___Kumaon___ regions of the Himalayas form Uttarakhand.

2. Another name of the Rajasthan Canal is the Indira Gandhi Canal.

3. Metals are separated from ore through a process called smelting.

4. The average density of the population of India is 382 per square kilometre.

5. The Indian Railways is divided into 16 zones.

C. State whether True or False.

1. The cottage industry employs a larger number of people. False

2. Jute is called the golden fibre of India. True

3. Iron is the ore of aluminium. False

4. The foothills of the Himalayas are called Terai. True

5. Radio, television, newspapers and magazines are called means of mass communication. True

D. Match the following.

Column A	Column B
1. Anai Mudi, about 2,695 metres high,	(a) lives in villages.
2. Arunachal Pradesh	(b) is the highest peak in the Southern Plateaus.
3. Jaipur, the capital of Rajasthan,	(c) require big power-driven plants and employ a large number of workers.
4. About 70 per cent of India's population	(d) is the largest state in the north-east.
5. Large scale industries	(e) is also called the Pink City.

E. Answer the following questions.

1. How is a Union Territory different from a State?

Ans. The Union Territories are under the control of the Central Government. The States are under the control of their respective State Governments.

2. What are sand dunes and how do they shift from one part of the desert to another?

Ans. Low hills of sand in deserts are called sand dunes. Strong winds can move sand dunes from one part of the desert to another.

3. Name any two trees grown in the thorn forests.

Ans. Babul and Kikar.

4. Which factors influence the establishment of an industry?

Ans. Availability of raw materials, source of power and markets are the main factors that influence the establishment of an industry.

5. Name any two plantation crops.

Ans. Tea and coffee.

6. Our Rights and Duties

ANSWERS

CHECKPOINT

Answer these questions orally.

1. What does a constitution contain?

Ans. A constitution of a country contains the laws of that country.

2. When do we celebrate the Republic Day?

Ans. 26 January every year.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. India has which type of government?

(a) Monarchical ☐ (b) Dictatorial ☐ (c) Democratic ✓

2. The people of India enjoy _____ Fundamental Rights.

(a) four ☐ (b) five ☐ (c) six ✓

3. We have _____ Fundamental Duties.

(a) six ☐ (b) eight ☐ (c) ten ✓

B. Write in one word.

1. A legal document which contains basic laws — Constitution

2. The rights given to every citizen of India — Fundamental Rights

3. The form of government chosen through elections — Democratic

4. A member of a country who has certain rights and is expected to perform certain duties — Citizen

C. Answer these questions.

1. What do you mean by a democratic country?

Ans. A democratic country is a country whose government is elected by its people.

2. Why is India called a Secular State?

Ans. This is because in India, every citizen is free to choose and follow any religion.

3. How do Rights give us protection?

Ans. The Rights are protected by courts. We can go to the court if any of our Rights are violated.

4. State any two objectives of the Directive Principles of State Policy.

Ans. (a) Provide proper living conditions

(b) Provide work for everyone.

THINK AND ANSWER

D. Explain the following:

Rights ⟷ Duties

Ans. Hint: We can demand our rights only when we fulfil our duties.

LET US DO

E. Project

Frame a few rights and duties for a student.

Ans. Do it yourself.

VALUE CORNER

F. One's rights are secured by one's duties.

7. India—The National Symbols

ANSWERS

WARM UP

Write the name of the national symbol that you see in this picture.

Ans. It is our National Emblem.

CHECKPOINT

Fill in the blanks with information from the text.

1. A country's independence and sovereignty is expressed by its National Flag.
2. Our National Flag is called the Tricolour.
3. The wheel of our National Flag has 24 spokes.
4. Our National Emblem has 4 lions.
5. Our National Song was written by Bankim Chandra Chatterjee.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. In our National Flag, saffron stands for
   (a) sacrifice [✓] (b) wealth [ ] (c) prosperity [ ]
2. Our National Tree is the
   (a) banana tree [ ] (b) babul tree [ ] (c) banyan tree [✓]
3. The National Emblem has been adopted from the Lion Capital of a pillar erected by
   (a) King Chandragupta [ ] (b) King Ashoka [✓] (c) King Harsha [ ]

B. Match the columns.

Column A	Column B
1. Green colour	(a) strength
2. The bull	(b) good taste

3. Tiger
4. The peacock
5. The mango

(c) hard work
(d) prosperity
(e) beauty

C. Answer these questions.

1. What is the National Flag of India?

Ans. Tricolour.

2. What is the colour of the wheel?

Ans. Blue.

3. When is the National Flag not hoisted?

Ans. After sunset.

4. What is written at the bottom of our National Emblem?

Ans. 'Satyameva Jayate'.

THINK AND ANSWER

D. You must have noticed that during the inauguration of multi-national sports events like the Olympics, the sportspersons of each country carry their national flag and sing the national anthem. Why do they do so?

Ans. To bring unity and universal friendship.

LET US DO

E. Activity

Draw a picture of our National Flower and colour it. Write about it.

Ans. Do it yourself.

VALUE CORNER

F. We should respect our National Symbols as well as the national symbols of other countries.

8. India's Rich Heritage

ANSWERS

WARM UP

Can you identify this building? Write its name.

Ans. Karnataka Vidhan Saudha

CHECKPOINT

Answer these questions.

1. How many languages and dialects are spoken in India?

Ans. 800.

2. How many official languages have been recognised by the Constitution of India?

Ans. 22.

3. Where is the Gol Gumbaz?

Ans. Bijapur, Karnataka.

4. Where is Carnatic music practised?

Ans. South India.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. This language is spoken in almost all the States of India.

(a) Hindi [✓] (b) Telugu [ ] (c) Tamil [ ]

2. This language is one of the official languages of India.

(a) Kannada [ ] (b) Sanskrit [ ] (c) English [✓]

3. Bihu dance form is popular in

(a) Assam [✓] (b) Rajasthan [ ] (c) Kerala [ ]

4. Bhimbetka is famous for its

(a) folk dance [ ] (b) churches [ ] (c) cave paintings [✓]

B. Fill in the blanks.

1. The different forms of a language are called dialects.

2. The style of writing a language is called script.

3. The small-sized paintings of Rajasthan are called miniatures.

4. Paintings are displayed in an art gallery.

C. Answer these questions.

1. What is the dance-drama form? Name any dance drama form.

Ans. In a dance drama, stories are told through dance, e.g., Kathakali.

2. How many types of classical music are there in India? Name them.

Ans. There are two types of classical music in India. These are Hindustani music and Carnatic music.

3. Name a few temples that have excellent architecture.

Ans. India is popularly called the land of temples, forts and palaces. The ancient temples of Madurai, Thanjavur, Belur, Halebid, Dilwara, Ranakpur, Khajuraho, Puri, Konark and the Kailash temple at Ellora are known for their artistic work all over the world.

4. Where is the Lotus Temple situated?

Ans. New Delhi.

THINK AND ANSWER

D. What is the role of languages in cultural diversity? Write a few lines on it.

Ans. Language is a vehicle through which the people of a country or region express their art, literature and culture.

LET US DO

E. Project

Collect information and pictures of a few classical and Carnatic singers of India.

Ans. Do it yourself.

F. Activity

Write the names and collect pictures of a few architectural heritage marvels of your State/ Union Territory.

Ans. Do it yourself.

VALUE CORNER

G. You should respect others' languages and cultures. These enrich the world.

LIFE SKILLS

H. Heritage, especially architectural heritage, is a heritage of the whole mankind, not of any community, race or nation.

During World War II, the Allies (England, France, Poland, etc.) discovered that German soldiers were using the Leaning Tower as an observation post. A US Army sergeant was sent to confirm the presence of German troops in the tower. The sergeant was so impressed by the beauty of the cathedral that he refrained from ordering an artillery strike, thus sparing it from destruction.

What would you have done if you were in the place of that sergeant?

Ans. Do it yourself.

9. They Enriched Our Thoughts

ANSWERS

CHECKPOINT

Tick (✓) the correct statement.

1. The Vedas are the holy books of the (Christians/Hindus✓).
2. The concept, 'Live and Let Live' was given by (Lord Buddha/Lord Mahavira✓).
3. Guru Nanak Dev founded the (Sikh✓/Parsi) religion.
4. Raja Rammohan Roy fought against (corruption/sati system✓).
5. The Battle of Kalinga changed the course of the life of Emperor (Ashoka✓/Akbar).

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Lord Mahavira was the _____ Tirthankara.
   (a) 14th ☐ (b) 24th ☑ (c) 34th ☐
2. The Upanishads belong to this religion.
   (a) Hinduism ☑ (b) Islam ☐ (c) Zoroaster ☐
3. The holy book of the Muslims is the
   (a) Bible ☐ (b) Zend Avesta ☐ (c) Quran ☑
4. The Parsi religion was founded in
   (a) Iran ☑ (b) India ☐ (c) Nepal ☐

B. Find out the names of religions practised in India hidden in the word grid.

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

C. Answer these questions.

1. What did Raja Rammohan Roy do for the improvement of society?

Ans. Raja Rammohan Roy lived in Bengal about 250 years ago. He fought against the practice of child marriage, caste system and sati (burning of the widow along with the body of her dead husband). He forced the government to pass a law against the sati system.

2. What are the main teachings of Lord Buddha?

Ans. He preached truth and non-violence.

3. What are the main teachings of Kabir?

Ans. Kabir worked against the caste system, blind faith and unnecessary rituals in all religions. He spread his message of love and brotherhood through *dohas* and bhajans.

THINK AND ANSWER

D. Why is Ashoka considered one of the greatest kings?

Ans. Hint: He established peace and nonviolence.

LET US DO

E. Project

Collect information about Ishwar Chandra Vidyasagar's contribution in modernising India.

Ans. Hint: Visit site www.indiansaga.com/history/reforms_vidyasagar.html

VALUE CORNER

F. We should always respect other religions.

MODEL TEST PAPER

A. Tick (✓) the correct answers.

1. The dam built on the Sutlej is

(a) Mahanadi ☐ (b) Bhakra ☑ (c) Hirakund ☐

2. This river flows through the Thar Desert.

(a) Luni ☑ (b) Ganga ☐ (c) Ganga ☐

3. The Shatabdi Express is a

(a) local train ☐ (b) goods train ☐ (c) superfast train ☑

4. The people of India enjoy _____ Fundamental Rights.

(a) four ☐ (b) five ☐ (c) six ☑

5. In our National Flag, saffron stands for

(a) sacrifice ☑ (b) wealth ☐ (c) prosperity ☐

B. Fill in the blanks.

1. The different forms of a language are called _____dialects_____.

2. Lord Mahavira was the 24th Tirthankara.
3. The National River of India is Ganga.
4. The staple food of India is rice.
5. The southernmost tip of India is the Indira Point.

C. State whether True or False.

1. Uttar Pradesh is the largest State in India. — False
2. At present, about 22 per cent of the total area of India is under vegetation. — True
3. The Indian Constitution recognises 25 languages. — False
4. In India, air transport was started in 1911. — True
5. 'Protect and take care of public property' is a Fundamental Duty of every citizen of India. — True

D. Match Column A with Column B.

Column A	Column B
1. Making jute bags	(a) mass communication
2. Ganga	(b) composer of the National Anthem
3. Radio	(c) longest river in India
4. Rabindranath Tagore	(d) popular folk dances of Punjab
5. Bhangra and Gidda	(e) agro-based industry

E. Write 'R' for Rights and 'D' for Duties against the following statements.

1. Getting pure drinking water from the municipality. — R
2. Protecting our monuments. — D
3. Obeying traffic rules. — D
4. Going to a place of worship of your choice. — R
5. I am a person with disability. I want to get admission in an educational institution as per my merit. — R

F. Draw and colour the National Flag of India.

Ans. Do it yourself.

G. Answer the following questions.

1. Write the names of the states in India that produce coal.

Ans. Jharkhand, Odisha, Chhattisgarh.

2. How are Rights and Duties closely related?

Ans. Rights and Duties are inseparable. They are two sides of the same coin. Every Right has a corresponding Duty. For example, if one has a right to vote, it is the duty of that person the exercise that Right judiciously in electing the right candidate without being swayed by religious, caste and monetary considerations.

3. Write the significance of India's National Emblem.

Ans. Our National Emblem has four lions. The lions guard the four lions directions. They are symbols of courage and power. Only three out of the four lions are visible at a time. The base of the lions has galloping horse on the left and a mightly bull on the right. The horse stands for energy and speed. The bull stands for hard work. In between the horse and the bull, lies a Wheel—the wheel of the Law. The wheel on the National Flag has been adopted from it. And below the Wheel of the Law is written 'Satyameva Jayate' which means 'Truth alone triumphs'. The words are written in the Devanagari script.

4. Who was Ramabai Ranade? What role did she play in social reformation in India?

Ans. Ramabai Ranade was a well-known social reformer in Maharashtra. She devoted her life to educate women and get them a place of respect in the society. She started the Poona Sewa Sadan to help women and orphans.

5. Name the main coniferous trees.

Ans. Pine, cedar, fir, chir and spruce.

H. Identify the following pictures.

M.S. Swaminathan

National Emblem

Bankim Chandra Chatterjee

Victoria Memorial

J. C. Bose

SCIENCE–4

SEMESTER

2

Staying Safe

1

ANSWERS

WARM UP

No, because these children are playing on the road and can be injured by the vehicles passing by.

CHECKPOINT 1

Write True or False.

1. We should touch electric wires with wet hands. *False*
2. We should not play with knives and blades. *True*
3. We should keep our toys at a proper place. *True*
4. We should take medicines on our own. *False*
5. We should cross the road at zebra crossing. *True*

CHECKPOINT 2

Fill in the blanks.

1. First aid can save someone's *life*.
2. A bruise is caused by *pressure*.
3. Keeping ice pack on insect bitten area reduces *swelling and pain*.

CHECK YOUR STUDY

A. Write True or False.

1. If there is no footpath, walk in the middle of the road. *False*
2. We should play with matchsticks. *False*
3. Do not touch electrical fittings with wet hands. *True*
4. If someone gets an electric shock, switch off the mains. *True*
5. Put ice pack over the bruise to heal it up. *True*

B. Tick (✓) the correct answers.

1. Children should not use
   (a) Books
   (b) Pencils
   (c) Toys
   (d) Knives ✓

2. Which of these objects should be handled carefully?

(a) Glass objects ✓ (b) Wooden objects

(c) Plastic objects (d) Rubber objects

3. One can apply baking soda paste on

(a) Blister (b) Wasp bitten area ✓

(c) Bruise (d) Bleeding nose

C. Find and encircle eight words related to the chapter in the grid given below.

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

D. Answer these questions.

1. What causes an accident?

Ans. Our carelessness while doing some work causes an accident.

2. Where and how should one cross the road?

Ans. One should cross the road at Zebra Crossing. Before crossing the road, look at both sides (left and right) one by one and cross when it is clear.

3. What should be done to a person with a nose-bleed?

Ans. A person with a nose-bleed should be made sit and lean the head forwards and closing the nose by holding it between the thumb and fingers.

4. What safety rules should we follow while handling electrical equipments?

Ans. We should follow following safety rules:

- The switch should be turned off before touching a stove, heater or lamp.
- Electrical switch, socket, wires or cords should not be touched with wet hands.
- If water is being heated in a bucket with an electric rod, do not touch the bucket while the switch is on.

5. List the safety rules to be followed at swimming pool.

Ans.
- Never go for a swim alone.
- Do not go up to the deep end.
- Never push anybody into the pool just for fun.
- Swim only when there is a life guard on duty.

6. What would you do if a person becomes faint?

Ans. If a person becomes faint:
- make the person lie on his/her back.
- loosen the belt and clothes.
- raise the legs of the person above the chest level.
- sprinkle some cold water on the person's face.
- do not let people crowd around the fainted person.
- let the fainted person breathe fresh air.

7. List three safety rules to be followed while in the bathroom.

Ans.
- Keep the floor of the bathroom dry.
- Do not leave the soap lying on the floor.
- Use non-slippery bath mats to prevent slipping.

8. List five safety rules to be followed in the kitchen.

Ans.
- Never wear loosely hanging or synthetic clothes such as nylon.
- Do not play with matchsticks.
- The knob of the gas should be turned off when not in use.
- Remain at a safe distance from the gas stove when food is being cooked.
- Electrical switches should be turned off before leaving the kitchen.

E. Look at the given pictures. Which safety rule are children not following while playing in the playground?

Do not play a rough game.

Do not hit each other.

F. Why should a playground be cleaned before starting to play?

Ans. A playground should be cleaned before starting to play because stone or glass pieces, pebbles, etc. littered in the playground may hurt us.

G. Teacher asked Mohit not to sharpen the pencil with a blade. What will happen if he does so?

Ans. The blade used to sharpen the pencil may cut and bleed the finger.

H. Ritu found a girl lying unconsciously on the floor. She immediately made her lie on her back and raised her legs above the heart level. Why did she do so?

Ans. The raising of legs above heart level ensures proper supply of blood to the brain.

J. If you are playing in a playground or in a park and if you come across stray dog, what safety rules should you follow?

Ans. We should not go near to or tease it and should not try to open its mouth or press its tail.

Clothes for Us

2

ANSWERS

WARM UP

Cotton cloth

CHECKPOINT 1

Write the names of few clothes that we wear in winter season.

Sweater *Scarf* *Cap*
Jacket *Muffler* *Gloves*

CHECKPOINT 2

Write True or False.

1. A nurse wears a black coat. *False*
2. A lawyer wears a white coat. *False*
3. A firefighter's uniform protects him from heat, smoke and flames of fire. *True*
4. A soldier's uniform is made of a tough material. *True*
5. We should wear tight shoes. *False*

CHECK YOUR STUDY

A. Write True or False.

1. We wear woollen clothes in summers. *False*
2. Synthetic fibres are non-porous in nature. *True*
3. Linen fibres are obtained from animals. *False*
4. Polyester is a natural fibre. *False*
5. Delicate clothes are generally dry-cleaned. *True*

B. Fill in the blanks.

1. The *synthetic* cloth is used to make umbrellas and raincoats.
2. Silk is a *natural* fibre.
3. The *dust* makes our clothes dirty.
4. Leaves of *neem* are used to keep insects away from clothes.

C. Tick (✓) the correct answers.

1. Which of the following materials is used for making a raincoat?

(a) Waterproof ✓ (b) Airproof (c) Fireproof (d) Dustproof

2. Which of these clothes prevent body heat from escaping out?

(a) Cotton (b) Rayon

(c) Jute (d) Woollen ✓

3. This type of cloth material is non-porous.

(a) Synthetic ✓ (b) Natural

(c) Jute (d) Cotton

4. Which of these is not a natural fibre?

(a) Rayon ✓ (b) Jute (c) Cotton (d) Silk

5. Synthetic fibres are generally

(a) Stretchable (b) Wrinkle-free

(c) Waterproof (d) All of these ✓

D. Answer these questions.

1. How did early man cover his body?

Ans. Early man covered his body with animal's skin, leaves and the bark of trees.

2. Why do we need clothes?

Ans. We need clothes to cover our body.

3. What do you understand by (a) casual clothes, (b) formal clothes?

Ans. (a) The clothes that we use for everyday wear are called casual clothes.

(b) The clothes that we wear at workplace are called formal clothes.

4. What are natural fibres? Name two natural fibres.

Ans. The fibres which are obtained from animals and plants are called natural fibres. Two natural fibres are cotton and wool.

5. What are synthetic fibres? Name two synthetic fibres.

Ans. Fibers made in factories are called synthetic fibres. Two synthetic fibres are nylon and rayon.

6. How are socks and shoes important to us?

Ans. Socks and shoes protect our feet from dust, heat, cold, insects, worms and germs. They protect us from getting hurt from pebbles and hard objects.

7. What special care should be taken for the clothing of a patient?

Ans. The clothes of a patient should always be disinfected with some antiseptic solution.

8. How should woollen and silk clothes be stored?

Ans. The woollen and silk clothes should be washed or dry-cleaned as required, kept in the sun for a few hours and stored with mothballs or dried neem leaves.

9. Why are cotton clothes preferred during summers?

Ans. Cotton clothes are porous. They soak the sweat easily and thus, keep the body cool.

E. Clothes made of synthetic fibres dry very quickly. Why?

Ans. Synthetic clothes are nonporous and do not soak water. Therefore, they dry very quickly.

F. Why are white or light-coloured clothes preferred in warm weather?

Ans. White or light-coloured clothes do not absorb much heat from the sun and thus, keep our body cool.

G. Why should we prefer wearing full-sleeve night suit?

Ans. We prefer wearing full-sleeve night suit because it protects us from insects such as mosquito bite during sleep.

Water

3

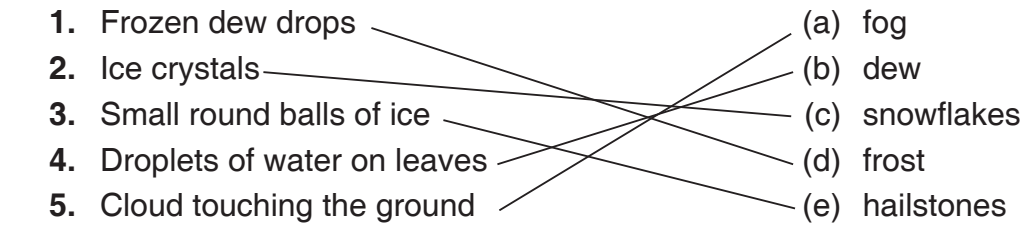
ANSWERS

WARM UP

Liquid form

CHECKPOINT 1

Match the following:



CHECKPOINT 2

Fill in the blanks.

1. The water that seeps into the ground is called *underground water*.
2. Germs present in the water cause *diseases*.
3. Water fit for drinking is called *potable* water.
4. Chlorine tablets are used to kill *germs* present in water.
5. The clear liquid on the top of sediments is called *decant*.

CHECK YOUR STUDY

A. Fill in the blanks.

1. Evaporation is faster when temperature is *higher*.
2. The amount of water vapour present in the air is called *humidity*.
3. Water vapour *condenses* to form clouds.
4. Water table rises during the *rainy* season.
5. The process of settling down heavy insoluble impurities in water is called *sedimentation*.

B. Write True or False.

1. Water is also present inside our body. *True*

2. Speed of wind has no effect on evaporation. *False*
3. Water cycle starts with the process of evaporation. *True*
4. Rainwater harvesting makes water impure. *False*
5. Germs present in water can make us sick. *True*

C. Tick (✓) the correct answers.

1. Which of these factors decreases the rate of evaporation?
   (a) Increased temperature (b) Increased surface area
   (c) Increased wind speed (d) Increased humidity ✓
2. Which of these is not a form of precipitation?
   (a) Rain (b) Gemstone ✓
   (c) Hailstone (d) Snow
3. Which of these chemicals is not used to purify water?
   (a) Chlorine (b) Baking powder ✓
   (c) Bleaching powder (d) Potassium permanganate

D. Answer these questions.

1. What is humidity?

Ans. The amount of water vapour present in the air is called humidity.

2. Why do wet clothes dry faster when they are spread out?

Ans. When we spread out wet clothes, the surface area increases and evaporation becomes faster. Hence, clothes dry faster.

3. What is water cycle? Explain.

Ans. The continuous movement of water from the surface of the Earth to the air and from the air back to the surface of the Earth is called water cycle.

The Sun's heat evaporates water from the water bodies. This water vapour rises up, cools and changes into water droplets. Water droplets collect together to form clouds. When the clouds become too heavy, they give water as rain or snow.

4. What is precipitation?

Ans. Any form of water that falls on the Earth's surface is called precipitation. It may be in the form of rain, snow, hail, etc.

5. What is the importance of precipitation?

Ans. Precipitation is important because:

- Without precipitation, all the land will turn into a desert.
- It helps farmers to grow crops.
- It gives us freshwater to drink.

6. List the harmful effects of precipitation.

Ans. Precipitation can be harmful as:

- Too much rain can cause severe floods which can lead to loss of life and property.
- Hailstones can damage life and property.
- Freezing rain and sleet can destroy trees and power lines.

7. How is snow formed?

Ans. In colder regions, when temperature is very low, water vapour in the clouds freezes into ice crystals which fall down as snow.

8. What are the ways in which the germs in drinking water can be killed?

Ans. The germs in drinking water can be killed by boiling and chlorination of water and by adding potassium permanganate and bleaching powder to it.

9. What is rainwater harvesting?

Ans. Rainwater harvesting is a way to collect rainwater when it rains, store it above or under the ground for later use or to charge the underground water table.

10. What is water table?

Ans. The level of underground water is called water table.

E. Flights may get delayed during winter mornings. Why?

Ans. Flights get delayed during winter mornings because winter mornings are generally foggy and have reduced visibility which hinders the landing and take off of flights.

F. Why is it easier to sip tea from a saucer than a cup?

Ans. The rate of evaporation increases with increase in surface area. In saucer, evaporation is faster as it has larger surface area than a cup. So, it is easier to sip tea from a saucer than a cup.

G. Wet clothes take longer to dry in rainy season. Why?

Ans. During rainy season, the amount of water vapour in air is very high, therefore, the rate of evaporation is low. So the clothes do not dry easily in this season.

H. Why should rainwater harvesting be encouraged?

Ans. Rainwater harvesting should be encouraged to raise the level of water table. It will help to meet the demand of water during summer or at the time of water scarcity.

Weather and Air

4

ANSWERS

WARM UP

Violet, Indigo, Blue, Green, Yellow, Orange, Red

CHECKPOINT 1

Give one word for the following.

1. State of atmosphere at a particular place and time — *Weather*
2. A person who studies Earth's atmosphere and forecasts weather — *Meteorologist*
3. Study of weather — *Meteorology*
4. Average weather conditions at a place over a long period of time — *Climate*

CHECKPOINT 2

Fill in the blanks.

1. Air is a *mixture* of many gases.
2. The main gases of air are *nitrogen* and *oxygen*.
3. When air becomes hot, it becomes *light*.
4. Land loses *heat* faster than water.
5. Land breeze blows at *night*.

CHECK YOUR STUDY

A. Fill in the blanks.

1. The Sun is the most important factor which controls *weather*.
2. Sunrays fall *slanting* on the Earth in morning and evening.
3. Moving air is called *wind*.
4. The envelope of air surrounding the earth is called *atmosphere*.
5. Hot air is *lighter* than cold air.

B. Write True or False.

1. Air is present all around us. — *True*
2. Air expands on cooling. — *False*
3. Water gets heated faster than land. — *False*

4. The land breeze blows in deserts. *False*

5. Weather changes every day. *True*

C. Match the columns.

1.	Moving air	(a)	Daytime
2.	Land breeze	(b)	Atmosphere
3.	Sea breeze	(c)	Wind
4.	Envelope of air	(d)	Night

D. Answer these questions.

1. What is meant by weather?

Ans. Weather is a state of the atmosphere at a particular place and time.

2. What causes changes in weather?

Ans. Temperature causes changes in weather. It is usually higher during the day than at night.

3. Who is a meteorologist?

Ans. A person who studies the earth's atmosphere and forecasts weather is called a meteorologist.

4. What type of climate is found in deserts and Antarctica?

Ans. Deserts have a hot and dry climate while the Antarctica has a very cold and dry climate.

5. Which gases are present in air?

Ans. Air contains nitrogen, oxygen, carbon dioxide, water vapour and other gases.

6. What is sea breeze? How does it occur?

Ans. The air which blows from sea to land in coastal areas during the daytime is called sea breeze.

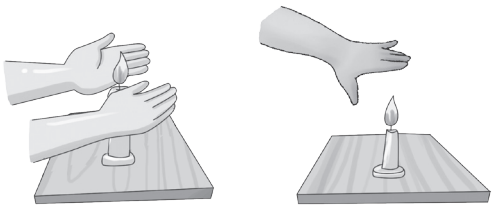
During the daytime when the sun shines brightly, the land near the sea gets heated faster than the sea water. The air above the land becomes warm and rises up. The cool air from sea rushes towards the land to take the place of the warm air that has risen up. This gives rise to sea breeze.

7. What is land breeze? How does it occur?

Ans. The air which blows from land to sea in coastal areas during night at is called land breeze.

At night after the sunset, the land near the sea becomes cool faster than the sea water. As the air above the sea is still warm, it rises up and the cool air from the land rushes towards the sea to take its place. This gives rise to land breeze.

E. Look at the diagrams shown here.



1. Which hand feels hotter?

Ans. The hand above the candle feels hotter.

2. What does this prove?

Ans. This proves that hot air is lighter and rises up.

F. We see people walking in a park early in the morning. Why?

Ans. People walk in a park early in the morning because mornings are cooler and it is optimum time for outdoor exercises as compared with later in the day. Besides this, the sunrays falling on the Earth at this time help in the formation of vitamin D in the body.

PERIODIC TEST 3

Time: 45 Minutes **Maximum Marks: 30**

A. Fill in the blanks by choosing correct words from the box. **(5)**

pain swelling nitrogen bat oxygen neem parasites

1. *Bat* is the only mammal that can fly.
2. Leaves of *neem* are used to keep insects away from clothes.
3. Keeping ice pack on insect bitten area reduces *pain* and *swelling*.
4. *Parasites* live on or inside the body of other animals.
5. The main gases of air are *nitrogen* and *oxygen*.

B. Write True or False. **(5)**

1. Animals get their food from plants. *True*
2. A solute is made up of solution and solvent. *False*
3. We should not play with knives and blades. *True*
4. Cacti have big and broad leaves. *False*
5. Water gets heated faster than land. *False*

C. Match the following. **(5)**

Column A		**Column B**
1. Salivary glands	(a)	Cockroach
2. Nymph	(b)	Pashmina wool
3. Yeast	(c)	Mouth
4. Cashmere goat	(d)	Thick and woollen
5. Winter clothes	(e)	Bread

D. Answer these questions. **(10)**

1. What causes an accident?

Ans. Our carelessness while doing some work causes an accident.

2. What would you do if a person faints?

Ans. If a person faints:

- make the person lie on his/her back.
- loosen the belt and clothes.
- raise the legs of the person above the chest level.
- sprinkle some cold water on the person's face.
- do not let people crowd around the fainted person.
- let the fainted person breathe fresh air.

3. What are natural and synthetic fibres? Name two each.

Ans. The fibres which are obtained from animals and plants are called natural fibres. Two natural fibres are cotton and wool.

Fibers made in factories are called synthetic fibres. Two synthetic fibres are nylon and rayon.

4. What causes changes in weather?

Ans. Temperature causes changes in weather. It is usually higher during the day than at night.

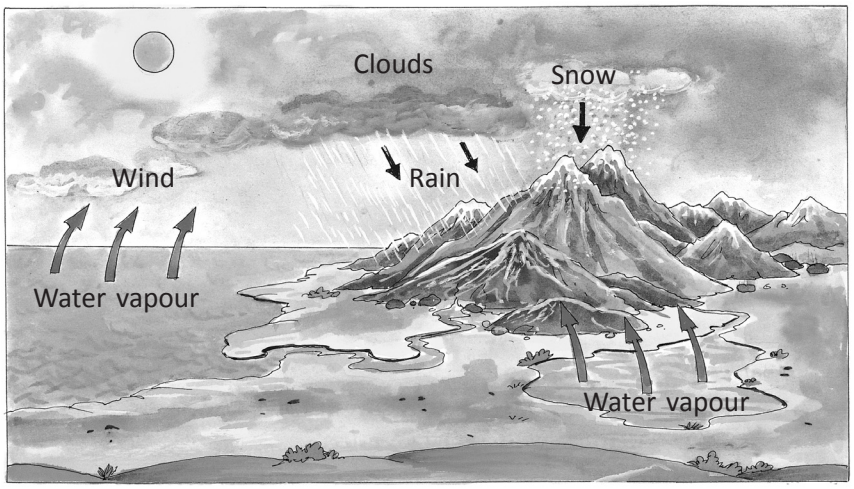
5. What are land and sea breezes?

Ans. The air which blows from sea to land in coastal areas during the daytime is called sea breeze.

The air which blows from land to sea in coastal areas during night is called land breeze.

E. Draw water cycle and label it. **(5)**

Ans.



Water cycle

Matter and Materials

5

ANSWERS

WARM UP

Glass

CHECKPOINT 1

Name any three:

1.	Gases	*Oxygen*	*Nitrogen*	*Carbon dioxide*
2.	Solids	*Table*	*Sugar*	*Salt*
3.	Liquids	*Water*	*Milk*	*Oil*

CHECKPOINT 2

Tick (✓) the correct word.

1. Water exists in **two/three** ✓ forms.
2. Water vapour is the **liquid/gaseous** ✓ state of water.
3. **Nephthalene** ✓ **/Chlorine** shows sublimation.
4. Solute and solvent make **ice/solution** ✓.
5. **Lemon juice/Soda** ✓ is a gas in liquid solution.

CHECK YOUR STUDY

A. Fill in the blanks.

1. All matter take up some *space* and has *mass*.
2. Matter is made up of small particles called *atoms*.
3. Atoms put together form a *molecule*.
4. Matter exists as *solid*, *liquid* and *gas*.
5. *Ice* is a solid, whereas *water* is a liquid.

B. Write True or False.

1. The process of changing from a solid state to a liquid state is called freezing. *False*
2. A solute is made of solution and solvent. *False*
3. Gases can flow easily. *True*

4. When water vapour changes back to water on cooling, it is called evaporation. *False*
5. Liquids neither have a definite shape nor a definite volume. *False*

C. Tick (✓) the correct answers.

1. Which state of matter takes the shape of the container?
   (a) Solid (b) Liquid
   (c) Gas (d) Liquid and gas ✓
2. Which state of matter does not flow freely?
   (a) Solid ✓ (b) Liquid (c) Gas (d) Liquid and gas
3. The solid which dissolves in a liquid is called a
   (a) solvent (b) solute ✓ (c) solution (d) fluid
4. Which of these is not a liquid?
   (a) Vinegar (b) Milk
   (c) Oil (d) Water vapour ✓

D. Answer these questions.

1. What is matter?

Ans. Anything that takes up space and has mass is called matter.

2. What are the common properties of matter?

Ans.
- A matter has mass and occupies space.
- All types of matter are formed of small particles called atoms.
- A matter can exist in different states or forms.
- A matter can be changed from one state or form to another.

3. How are molecules arranged in a solid, a liquid and in a gas?

Ans. **Solid:** The molecules in a solid are very tightly arranged.
Liquid: The molecules in a liquid are loosely arranged.
Gas: The molecules in a gas are very loosely arranged.

4. What is (a) evaporation, (b) condensation, (c) melting, (d) freezing?

Ans. (a) Changing of a liquid into vapour (gaseous) form is called evaporation.
(b) When water vapour changes into water on cooling, it is called condensation.
(c) The process of changing a solid into a liquid on heating is called melting.
(d) The process of changing of a liquid into a solid is called freezing.

5. What is sublimation?

Ans. The change from solid state to gaseous state, without changing into the liquid state is called sublimation.

6. What is (a) a solute, (b) a solvent, (c) a solution?

Ans. (a) A substance that is soluble in a liquid is called a solute.
(b) A liquid in which a solute can be dissolved is called solvent. Here, water is the solvent.
(c) A solution is a mixture of solute and solvent.

7. Name the solute and the solvent in the following solutions:

(a) Lemon juice in water (b) Chocolate in water (c) Sugar in milk

Ans. (a) Solute – Lemon juice, Solvent – Water

(b) Solute – Chocolate, Solvent – Water

(c) Solute – Sugar, Solvent – Milk

E. Complete the following table.

Property	Gas	Solid	Liquid
Ability to flow	*Can flow easily*	*Do not flow*	Can flow
Shape	*No fixed shape, takes the shape of the container*	Fixed shape	*No fixed shape, takes the shape of the container*
Arrangement of molecules	Very loosely packed	*Very tightly packed*	*Loosely packed*
Volume	Not definite	*Definite*	*Definite*

F. When sugar is dissolved in water, the volume of water does not rise. Why?

Ans. On dissolving sugar in water, the volume of water does not rise because the molecules of sugar take the space between the molecules of water.

G. A balloon is attached to the mouth of a bottle containing club soda. The bottle is then shaken gently and left to stand for some time. The balloon gets inflated. Why?

Ans. This is because the gas formed by the shaking of the bottle of club soda takes the space inside the balloon.

H. How are we able to smell the food being cooked from a distance?

Ans. We are able to smell the food being cooked from a distance because molecules of food get far apart from each other and spread through all the space in the air.

Force, Work and Energy

6

ANSWERS

WARM UP

By pulling the cart

CHECKPOINT 1

Which force is being used in these situations? There might be more than one kind of force working in some situations.

1. Opening a drawer — *Muscular force*
2. Falling of rain — *Gravitational force*
3. Doing your homework — *Muscular force*
4. Rolling down of a stone from a hill — *Gravitational force*
5. Riding a bicycle — *Muscular force*

CHECKPOINT 2

Fill in the blanks.

1. Machines make our work *easier*.
2. Seesaw is a type of *lever*.
3. A door knob is an example of *wheel and axle*.
4. Coal is an example of *fossil fuel*.
5. Solar energy is obtained from *sun*.

CHECK YOUR STUDY

A. Write True or False.

1. Force due to gravity is called frictional force. — *False*
2. Energy is the ability to do work. — *True*
3. Work is done when force is applied on an object. — *True*
4. One form of energy can be changed into another. — *True*
5. Coal is a renewable source of energy. — *False*

B. Identify the kind of force in each of the following cases.

1. The force used by a man in turning a big stone — *Muscular force*

2. The force that makes an apple fall on the ground *Gravitational force*

3. The force which causes a toy car to stop after some time *Frictional force*

4. The force used during swimming *Muscular force*

5. The force that makes a shuttle cock fall down after being hit *Gravitational force*

C. Tick (✓) the correct answers.

1. During photosynthesis,

(a) Chemical energy is converted into solar energy

(b) Muscular energy is converted into solar energy

(c) Muscular energy is converted into chemical energy

(d) Solar energy is converted into chemical energy ✓

2. The force which pulls an object towards the earth is called

(a) Muscular force (b) Gravitational force ✓

(c) Frictional force (d) None of these

3. Which of the following is not a source of energy?

(a) Water (b) Sun (c) Wind (d) Friction ✓

D. Match the columns.

Column A	Column B
1. Lever	(a) Knife
2. Wheel and Axle	(b) Wooden plank
3. Pulley	(c) Light bulb
4. Inclined plane	(d) Cranes
5. Screw	(e) Seesaw
6. Wedge	(f) Screwdriver

E. Answer these questions.

1. What is force?

Ans. Force is a pull or push that makes some change in an object.

2. When is work said to be done?

Ans. When we apply force to an object and it moves through a distance, then work is said to be done.

3. What is energy? What are its different types?

Ans. Energy is the ability to do work. Different types or forms of energy are solar energy, wind energy, hydroenergy, heat energy, geothermal energy, atomic energy and muscular energy.

4. Give one example of energy change.

Ans. When we beat a drum, the muscular energy is converted into sound energy.

5. What are fossil fuels? How are they formed?

Ans. The fuels which we get by drilling or mining from the Earth are called fossil fuels. Coal, petrol and natural gas are fossil fuels.

These fuels have been formed from the remains of dead plants and animals which got buried under the earth's crust millions of years ago.

6. What are simple machines? What are their different types?

Ans. Simple machines are the tools which make our work easier and faster by changing the direction of the applied force.

Different types of simple machines are lever, pulley, wheel and axle, inclined plane, screw and wedge.

7. What is a lever? Give its two uses.

Ans. Lever is a simple machine. It is used to cut things, move or lift heavy objects, and to open lids.

8. What is a screw? Give its two uses.

Ans. A nail with grooves in it is called a screw. A screw is used to hold objects together. It is also used in fountain pen caps, bottle caps, light bulb, jar lid, taps, etc.

9. What do you understand by

(a) Muscular force (b) Gravitational force

(c) Frictional force (d) Energy

Ans. (a) The force used by the muscles of the body is called muscular force.

(b) The force that the Earth exerts on objects to pull them down is called gravitational force or gravity.

(c) A force which stops a moving object is called frictional force.

(d) Energy is the ability to do work. It is needed to exert force to get the work done.

F. Rita finds it difficult to lift a bag full of potatoes. Why?

Ans. Rita may have little energy to apply muscular force to lift a bag full of potatoes.

G. CNG is considered a non-renewable source of energy. Why?

Ans. CNG is a non-renewable source of energy because it will be exhausted after use and may take thousands of years to form again.

Solar System and the Blue Planet

7

ANSWERS

WARM UP

Saturn

CHECKPOINT 1

Fill in the blanks.

1. A *star* is a huge ball of hot gases which gives out heat and light.
2. A *planet* does not have heat and light of its own.
3. *Venus* is the hottest planet.
4. *Mercury* is the smallest planet.
5. *Earth* is the only planet that has life on it.

CHECKPOINT 2

Fill in the blanks.

1. The *Earth* is the only planet which has atmosphere on it.
2. The *core* of the Earth is made of molten rocks.
3. The *spinning* of the Earth on its axis causes day and night.
4. The *equator* divides the Earth into two hemispheres.
5. The Earth takes *365¼* days to complete one revolution around the Sun.

CHECK YOUR STUDY

A. Name the following.

1. A huge ball of hot gases which gives out heat and light — *Star*
2. The fixed path on which a planet revolves around the Sun — *Orbit*
3. A heavenly body that revolves around a star — *Planet*
4. The only planet where life is possible — *Earth*
5. A dwarf planet — *Pluto*

B. Fill in the blanks.

1. The *equator* is an imaginary line that passes through the two poles of the Earth.

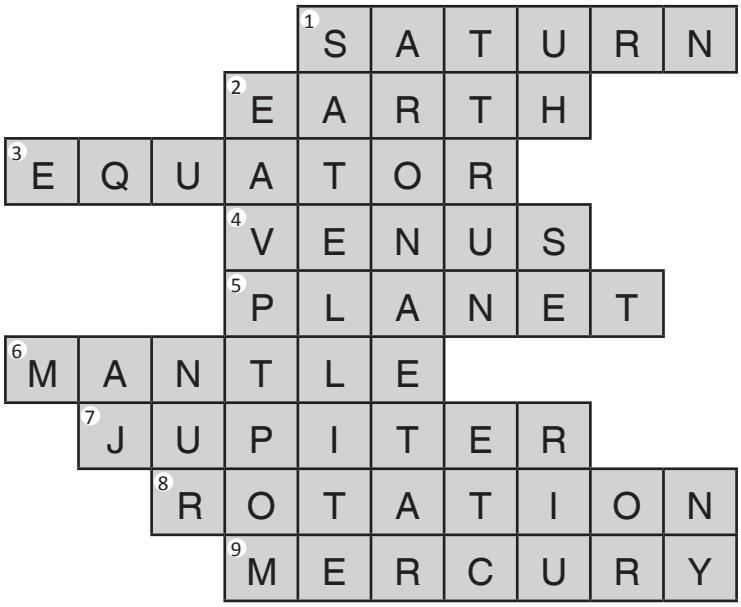
2. The *hemisphere* is one half of the Earth divided by equator.
3. The crust is the *outermost* layer of the Earth.
4. Neptune is a *cold* planet.
5. *Revolution* causes seasons on the Earth.

C. Write True or False.

1. The Moon is at the centre of our solar system. *False*
2. A planet reflects the light of the nearest star. *True*
3. The Mars is bigger than the Jupiter. *False*
4. The Earth is about 8 million years old. *False*
5. The Earth was a spinning ball of hot gases and dust in the beginning. *True*

D. Solve the crossword puzzle with the help of given clues.

1. The rings of this planet are made of ice and dust.
2. The planet on which we live.
3. The imaginary line which divides the Earth into two equal halves.
4. The hottest planet.
5. A heavenly body that revolves around a star.
6. This is found below the crust.
7. The largest planet.
8. The spinning of the Earth on its own axis.
9. The smallest planet.



E. Answer these questions.

1. What is solar system?

Ans. The family of the Sun, 8 planets, dwarf planets, moons and other heavenly objects is called solar system.

2. What is a constellation? Name two constellations.

Ans. The groups of stars forming a shape or a pattern in the sky are called constellations. The two constellations are Ursa Major (the Great Bear) and Ursa Minor (the Small Bear).

3. Name all the planets in order of their distance from the Sun.

Ans. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

4. What are the differences between inner planets and outer planets?

Ans. **Inner planets:** They are closer to the Sun. They are smaller, made up of rocks and do not have rings around them. They are Mercury, Venus, Earth and Mars.

Outer planets: They are away from the sun. They are larger, made up of gases and have rings around them. They are Jupiter, Saturn, Uranus and Neptune.

5. How is the crust of the Earth different from its mantle?

Ans. The crust is the outer hard surface of the Earth which is 30 kilometres thick, whereas mantle is the middle layer which is made up of rocks and is 3000 kilometres thick.

6. What is a volcano?

Ans. A volcano is a weak spot in the Earth's crust through which molten rocks (called lava) come out from inside of the earth along with smoke and gases.

7. What are rotation and revolution?

Ans. The spinning of the Earth on its axis is called rotation.

The movement of the Earth around the Sun in a fixed orbit is called revolution.

F. If we look up at the sky during daytime, we do not see any stars. Why?

Ans. We do not see any stars during daytime because of the bright glare of the Sun.

G. Why does the Sun appear very big star to the people on the Earth.

Ans. The Sun is the closest star to the Earth. Therefore, it appears very big.

H. Each season takes a year to come again. Why?

Ans. Change of seasons occurs due revolution of the Earth around the Sun. It takes 365¼ days or one year to complete one revolution. Therefore, each season takes a year to come again.

MODEL TEST PAPER

Time: 1 Hour **Maximum Marks: 50**

A. Give one word for the following. **(5)**

1. The sugar made in the leaf during photosynthesis — *Glucose*
2. The uniform worn by a nurse — *White tunic*
3. Changing of water vapour into water droplets — *Condensation*
4. A substance that is soluble in a liquid — *Solute*
5. The push or pull applied on an object — *Force*

B. Match the following. **(5)**

Column A	Column B
1. Breathing roots	(a) Wasp sting
2. Calamine lotion	(b) Water vapour in air
3. Delicate clothes	(c) Iodine
4. Humidity	(d) Mangrove plants
5. Sublimation	(e) Dry-clean

C. Write True or False. **(5)**

1. Birds have hollow bones filled with air. — *True*
2. If someone gets an electric shock, switch off the mains. — *True*
3. One form of energy cannot be changed into another form. — *False*
4. A planet reflects the light of the nearest star. — *True*
5. Liquids neither have a definite shape nor a definite volume. — *False*

D. Circle the odd word. **(5)**

1.	Fish	(Cat)	Turtle	Frog
2.	Cotton	Jute	Wool	(Rayon)
3.	(Water)	Pencil	Marble	Stone
4.	Lever	Pulley	(Energy)	Wedge
5.	(Moon)	Venus	Earth	Mars

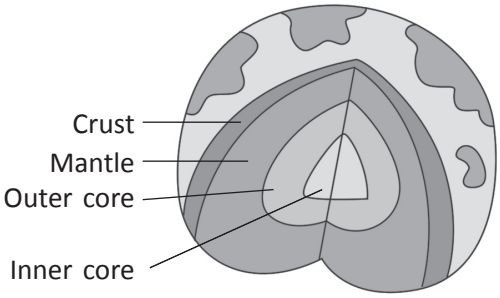
E. Draw and label the diagrams. **(8)**

1. A windmill

Ans.

2. Inside of the Earth

Ans.



F. Fill in the blanks. **(6)**

1. *Virus* can reproduce only inside the body of a living organism.

2. Water fit for drinking is called *potable* water.

3. Matter is made up of small particles called *atoms*.

4. A door knob is an example of *wheel and axle*.

5. *Earth* is the only planet that has life on it.

6. The *crust* is the outermost layer of the Earth.

G. Answer these questions. **(10)**

1. Why is fibre required in our diet? Name some foods that contain fibre.

Ans. Fibre in our diet keeps our digestive system healthy. Foods such as whole grains, spinach, lady's finger, cucumber, oats, etc. give us fibre.

2. How is snow formed?

Ans. In colder regions, when temperature is very low, water vapour in the clouds freezes into ice crystals which fall down as snow.

3. What are the common properties of matter?

Ans.
- A matter has mass and occupies space.
- All types of matter are formed of small particles called atoms.
- A matter can exist in different states or forms.
- A matter can be changed from one state or form to other.

4. What are simple machines? What are their different types?

Ans. Simple machines are the tools which make our work easier and faster by changing the direction of the applied force.

Different types of simple machines are lever, pulley, wheel and axle, inclined plane, screw and wedge.

5. What is a constellation? Name any two constellations.

Ans. The groups of stars forming a shape or a pattern in the sky are called constellations. The two constellations are Ursa Major (the Great Bear) and Ursa Minor (the Small Bear).

H. Tick (✓) the correct answers. **(6)**

1. Saliva helps in the digestion of

(a) Proteins (b) Fats (c) Starch ✓ (d) Cellulose

2. Children should not use

(a) Books (b) Pencils (c) Knives ✓ (d) Toys

3. Which of these is not a liquid?

(a) Vinegar (b) Oil

(c) Milk (d) Water vapour ✓

4. The force which pulls an object towards the Earth is called

(a) Frictional force (b) Muscular force

(c) Gravitational force ✓ (d) Energy

5. The planet nearest to the Sun is

(a) Earth (b) Saturn (c) Mars (d) Mercury ✓

6. Which of these is an example of an inclined plane?

(a) Knife (b) Ramp ✓ (c) Screwdriver (d) Tongs