MOTHER TERESA PUBLIC SCHOOL

HONGASANDRA , BANGALORE -560068

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PART 2

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INDEX

SN	Upload Date	Title	Approved on/ by	Remarks
08	1/11/2026	Weight and Capacity		
09	1/11/2026	Coconut Farm		
10	1/11/2026	Symmetrical Designs		
11	1/11/2026	Grandmother's Quilt		
12	1/11/2026	Racing Seconds		
13	1/11/2026	Animal Jumps		
14	1/11/2026	Maps and Locations		
15	1/11/2026	Data handling		

Chapter 8: Weight and Capacity

I. Fill in the blanks

1. 1 kg = **1 ,000** g
2. 1 L = **1 ,000 mL**
3. ½ kg = **500 g**
4. Weight is measured in **grams** and **kilograms**.
5. Capacity is measured in **litres** and **millilitres**.
6. 1 ,500 mL = **1 L 500** mL

II. True or False.

- 1 kg = 1 ,000 g. — **True**
- 1 L = 1 00 mL. — **False**
- A bucket can hold water. — **True**
- A watermelon is usually measured in millilitres. — **False**
- 500 g is equal to 1 kg. — **False**

III. Choose the correct answer

1). 1 kg is equal to:

a) 1 00 g b) 1 ,000 g c) 1 0 g

Answer: b) 1 ,000 g

2). Which unit is suitable for measuring milk in a large bottle?

a) Litre b) Kilogram c) Gram

Answer: a) Litre

3). 2 L is equal to:

a) 200 mL b) 2,000 mL c) 20 mL

Answer: b) 2,000 mL

4). Which is heavier?

a) 500 g b) 1 kg c) 250 g

Answer: b) 1 kg

5). Which unit is suitable for measuring the weight of an apple?

a) Gram b) Litre c) Millilitre

Answer: a) Gram

IV. Units of Weight

Weight is measured in grams, kilograms and tonnes.

Unit	Symbol	Example
Gram	g	A pencil
Kilogram	kg	A bag of rice
Tonne	t	A heavy truckload

Conversions:

- 1 ,000 g = 1 kg

V.Units of Capacity

Capacity is the amount of liquid a container can hold. The common units of capacity are millilitres, litres and kilolitres.

Unit	Symbol	Example
Millilitre	mL	A spoonful of medicine
Litre	L	A milk packet
Kilolitre	kL	A large water tank

Conversions:

- 1 ,000 mL = 1 L
- 1 ,000 L = 1 kL

VI.Addition of Weight

1). Add 2 kg 350 g and 3 kg 450 g.

Solution:
Kilograms: 2 + 3 = 5 kg
Grams: 350 + 450 = 800 g

Answer: 5 kg 800 g

2). **Add 3 kg 750 g and 2 kg 500 g.**

Solution:
Kilograms: 3 + 2 = 5 kg
Grams: 750 + 500 = 1 ,250 g = 1 kg 250 g
Total = 5 kg + 1 kg 250 g

Answer: 6 kg 250 g

Vll. Subtraction of Weight

1). Subtract 2 kg 300 g from 5 kg 800 g.

Solution:
Kilograms: 5 − 2 = 3 kg
Grams: 800 − 300 = 500 g

Answer: 3 kg 500 g

2). Subtract 2 kg 750 g from 5 kg 200 g.

Solution:
Since 200 g is less than 750 g, borrow 1 kg = 1 ,000 g.
5 kg 200 g = 4 kg 1 ,200 g
Kilograms: 4 − 2 = 2 kg
Grams: 1 ,200 − 750 = 450 g
Answer: 2 kg 450 g

Vll. Word Problems

1). An oil factory needs to pour 8 L 400 mL of oil equally into 7 containers for storage. How much oil will each container hold?

Given: Total oil = 8 L 400
mL Number of containers
= 7

Solution:
Step 1 : Convert the total oil into millilitres.
8 L 400 mL = (8 × 1 ,000) + 400 = 8,400 mL
Step 2: Divide equally among 7 containers.
Capacity of each container = 8,400 ÷ 7 = 1 ,200 mL

Answer: Each container will hold 1 ,200 mL (or 1 L 200 mL) of oil.

2). If one container can hold 1 L 75 mL of buttermilk, how much buttermilk will there be in 8 such containers?

Solution:
Step 1 : Convert the capacity of one container
into millilitres. Capacity of 1 container 1 L 75
mL = 1 ,000 + 75 = 1 ,075 mL Step 2: Multiply
by 8 to find the total capacity.
Total buttermilk = 1 ,075 × 8 =
8,600 mL Convert into litres and
millilitres:

8,600 mL = 8 L 600 mL

Answer: There will be 8 L 600 mL of buttermilk in 8 containers.

Vlll.Units of Weight (Mass)

1) 1 000 milligrams (mg) = 1 gram (g)
2) 1 000 grams (g) = 1 kilogram (kg)
3) 1 00 kilogram (kg) = 1 quintal
4) 1 0 quintals = 1 tonne (1 000kg)

IX) Units of capacity (Volume)

1) 1 000 millilitres (ml) = 1 litre
2) 1 000 litres (1) = 1 kilolitre(Kl)

Chapter 9: Coconut Farm

I. FILL IN THE BLANKS

1) A place where coconut trees are grown is called a **coconut farm**.

2) 5 × 6 = **30**

3) 36 ÷ 6 = **6**

4) 45 ÷ 5 = **9**

5) If 5 baskets contain 8 coconuts each, the total number of coconuts is **40**

II. TRUE OR FALSE

1) 36 ÷ 6 = 8 — **False**

2) 24 ÷ 4 = 8 — **False**

3) Four groups of 6 make 24. — **True**

4) Division can be used to share things equally. — **True**

III. CHOOSE THE CORRECT ANSWER

1) There are 6 rows with 5 coconut trees in each row. How many trees are there?

a) 11 b) 30 c) 25 d) 35

Answer: b) 30

2) 48 ÷ 6

a) 6 b) 7 c) 8 d) 9

Answer: c) 8

3) Which multiplication sentence represents 5 + 5 + 5 + 5?

a) 4 × 5 b) 5 + 4 c) 5 × 5 d) 4 + 5

Answer: a) 4 × 5

4) A farmer shares 40 coconuts equally among 8 people. Each person gets:

a) 4 b) 5 c) 6 d) 8

Answer: b) 5

IV. ANSWER THE FOLLOWING QUESTIONS

1) What is a coconut farm?

Answer: A coconut farm is a place where coconut trees are grown.

2) What is multiplication?

Answer: Multiplication is a mathematical operation used to find the total of equal groups**.**

3) What is division?

Answer: Division is the process of sharing or grouping a quantity equally.

4) Divide 56 by 7.

Answer: 56 ÷ 7 = 8

V. WORD PROBLEMS

1) A farmer has 144 coconuts. He packs them equally into 12 baskets. How many coconuts are in each basket?

Solution:

Total coconuts = 144

Number of baskets = 12

144 ÷ 12 = 12

Answer: Each basket contains 12 coconuts.

2) Sabina cycles 160km in 20 days and covers the same distance each day. How many kilometers does she cycle each day?

Solution:

Total distance = 160km

Number of days = 20 days

Distance per day = 160 ÷ 20 = 8 km

Answer: Sabina cycles 8 kilometers each day.

3) How many ₹100 notes does Seema need to carry if she wants to buy coconuts worth ₹4,200?

Solution:

Value of coconuts = ₹4,200

Value of note = ₹100

Total number of notes = 4200 ÷ 100 = 42

Answer: Seema needs to carry 42 notes of ₹100 to buy the coconuts.

Chapter 10: Symmetrical Designs

I. FILL IN THE BLANKS

1. A design with two matching halves is called a **symmetrical design**.
2. A square has **four** lines of symmetry.
3. A circle has **infinitely many** lines of symmetry.
4. **Rangoli** designs can show symmetry.
5. The mirror image of a shape is an example of **reflection symmetry**.

II. TRUE OR FALSE

- 1. A rectangle has four lines of symmetry. — **False**
- 2. A circle has no line of symmetry. — **False**
- 3. The image seen in a mirror is called a mirror image. — **True**
- 4. Rangoli designs can show symmetry. — **True**

III. CHOOSE THE CORRECT ANSWER

1. How many lines of symmetry does a square have?

a) 1 b) 2 c) 4 d) 5

Answer: c) 4

2. How many lines of symmetry does an equilateral triangle have?

a) 1 b) 2 c) 3 d) 4

Answer: c) 3

3. Which shape has infinitely many lines of symmetry?

a) Square b) Rectangle c) Circle d) Triangle

Answer: c) Circle

4. Which of the following letters has vertical symmetry in a suitable block font?

a) A b) F c) G d) R

Answer: a) A

IV. ANSWER THE FOLLOWING QUESTIONS

1. What is symmetry?

Answer: Symmetry means that two parts of a shape or design match each other when folded along a particular line.

2. What is a line of symmetry?

Answer: A line of symmetry is an imaginary line that divides a shape or object into two identical, matching halves.

3. **Name two objects that show symmetry.**
   Answer: A butterfly and a flower show symmetry.
4. **Does every shape have a line of symmetry?**
   Answer: No, not every shape has a line of symmetry.

V. MATCH THE FOLLOWING

Column A	Column B
1. Butterfly	One line of symmetry
2. Fan	Rotational symmetry
3. Circle	Infinitely many lines of symmetry
4. Pinwheel	Rotational symmetry
5. Square	Four lines of symmetry

Chapter 11: Grandma’s Quilt

I. FILL IN THE BLANKS

1. A quilt is made by stitching pieces of cloth **together.**
2. A design that repeats in a regular order is called a **pattern.**
3. A line that divides a symmetrical design into matching halves is called a **line of symmetry.**
4. A circle has **no** straight sides.

II. TRUE OR FALSE

- 1. A quilt can contain different shapes and colours. — **True**
- 2. A repeating pattern follows a regular order. — **True**
- 3. A circle has corners. — **False**
- 4. Symmetrical patterns look the same on both sides of a line of symmetry. — **True**

III. CHOOSE THE CORRECT ANSWER

1. Which shape is most suitable for measuring area?

a) Circle b) Triangle c) Square d) Oval

Answer: c) Square

2. The area of a rectangle is:

a) Length + Breadth b) 2 × Length c) Length × Breadth d) Breadth + 2

Answer: c) Length × Breadth

3. The perimeter of a rectangle is:

a) Length × Breadth b) 2 × (Length + Breadth) c) 4 × Length d) Breadth + 2

Answer: b) 2 × (Length + Breadth)

4. The unit of perimeter is:

a) Square unit b) Unit of length c) Kilogram d) Litre

Answer: b) Unit of length

IV. SOLVE THE FOLLOWING QUESTIONS

1. A square quilt has a side length of 8 units. What is the total length of lace needed to cover its border?

Solution:

Side of the square = 8 units

A square has 4 equal sides.

Perimeter of a square = 4 × Side = 4 × 8 = 32 units

Answer: 32 units

2. If the perimeter of a square is 24 cm, find the length of one of its sides.

Solution:

Perimeter of a square = 24 cm

A square has 4 equal sides.

Length of one side = Perimeter ÷ 4 = 24 ÷ 4 = 6 cm

Answer: 6 cm

3. Calculate the perimeter of a pentagon where every side is 5 cm long.

Solution:

A pentagon has 5 sides.

Length of each side = 5 cm

Perimeter of a pentagon = Sum of all its sides = 5 × 5 = 25 cm

Answer: 25 cm

4. Find the area of a square whose side is 15 m.

Solution:

Side of the square = 15 m

Area of a square = Side × Side = 15 × 15 = 225 m^2

Answer: 225 m^2

5. Find the area of a rectangular garden that is 64 m^2 and its length is 16m what is it's breath?

Solution:

The area of a rectangular garden = 64 m^2

Length = 16 m

Breadth = Area ÷ Length = 64 ÷ 16 = 4 m

Answer: The breadth of the garden is 4 m.

Chapter 12: Racing Seconds

I. FILL IN THE BLANKS

1. One minute is equal to **60** seconds.

2. A **stopwatch** is used to measure the time taken in a race.

3. Two minutes are equal to **120** seconds.

4. 120 seconds = **2** minutes.

5. One hour is equal to **60** minutes.

II. TRUE OR FALSE

- 1. One minute is equal to 100 seconds. — **False**
- 2. A stopwatch is useful in a race. — **True**
- 3. Two minutes = 120 seconds. — **True**
- 4. 60 seconds make one minute. — **True**
- 5. 3 hours = 180 minutes. — **True**

III. CHOOSE THE CORRECT ANSWER

1. How many seconds are there in 3 minutes?
   a) 60 seconds b) 120 seconds c) 180 seconds d) 300 seconds
   Answer: c) 180 seconds

2. A runner takes 18 seconds, and another runner takes 22 seconds. Who is faster?
   a) First runner b) Second runner c) Both are equally fast d) Cannot be determined
   Answer: a) First runner

3. Two hours are equal to:
   a) 60 minutes b) 90 minutes c) 120 minutes d) 180 minutes
   Answer: c) 120 minutes

IV. MATCH THE FOLLOWING

No.	Column A	Column B
1.	1 minute	60 seconds
2.	1 hour	60 minutes
3.	1 day	24 hours
4.	1 week	7 days
5.	1 year	12 months

6.	1 month	30 days

Note: A month can have 28, 29, 30, or 31 days.

V. ANSWER THE FOLLOWING QUESTIONS.

1. What is time?

Answer: Time tells us when an event happens and how long an activity lasts.

2. Which is longer: 90 seconds or 1 minute?

Answer: 90 seconds is longer than 1 minute because 1 minute is equal to 60 seconds.

3. How many minutes are there in 3 hours?

Given: 1 hour = 60 minutes
Solution: 3 × 60 = 180 minutes

Answer: There are 180 minutes in 3 hours.

4. Jyoti went out to play at 6:15 p.m. and came back after 1 hour and 45 minutes. At what time did she come home?

Given: Starting time = 6:15 p.m. | Duration = 1 hour and 45 minutes
Solution: 6:15 p.m. + 1 hour = 7:15 p.m. → 7:15 p.m. + 45 minutes = 8:00 p.m.

Answer: Jyoti reached home at 8:00 p.m.

5. Ragini took 1 hour and 10 minutes to complete her homework. She finished it at 9:40 p.m. At what time did she start?

Given: Finishing time = 9:40 p.m. | Duration = 1 hour and 10 minutes
Solution: 9:40 p.m. - 1 hour = 8:40 p.m. → 8:40 p.m. - 10 minutes = 8:30 p.m.

Answer: Ragini started her homework at 8:30 p.m.

6. Raji started her homework at 6:00 p.m. She finished it in 1 hour and 30 minutes. At what time did she finish?

Given: Starting time = 6:00 p.m. | Duration = 1 hour and 30 minutes
Solution: 6:00 p.m. + 1 hour = 7:00 p.m. → 7:00 p.m. + 30 minutes = 7:30 p.m.

Answer: Raji finished her homework at 7:30 p.m.

7. Alya went out to play at 5:30 p.m. and came back after 1 hour and 10 minutes. At what time did she come back?

Given: Starting time = 5:30 p.m. | Duration = 1 hour and 10 minutes
Solution: 5:30 p.m. + 1 hour = 6:30 p.m. → 6:30 p.m. + 10 minutes = 6:40 p.m.

Answer: Alya came back home at 6:40 p.m.

Chapter 1 3: Animal Jumps

I. Choose the Correct Answer

1. Which of the following is a factor of 24?

a) 5 b) 6 c) 7 d) 9

Answer: b) 6

2. Which number is a multiple of 9?

a) 27 b) 25 c) 31 d) 35

Answer: a) 27

3. The factors of 1 5 are:

a) 1 , 3, 5, 1 5
b) 1 , 5, 1 0, 1 5
c) 1 , 2, 3, 1 5
d) 3, 6, 9, 1 5

Answer: a) 1 , 3, 5, 1 5

4. Which of these is a prime number?

a) 1 2 b) 21 c) 1 3 d) 1

Answer: c) 1 3

5. The smallest factor of any number is:

a) 0 b) 1 c) 2 d) The number itself

Answer: b) 1

II. Fill in the Blanks

1. A frog jumps 3 steps at a time. Its landing positions are 3, 6, 9, _____.

Answer: 1 2

2. The first five positive multiples of 2 are 2, 4, 6, 8, _____.

Answer: 1 0

3. 6 × 3 = 1 8

4. The next number in the sequence 7, 1 4, 21 , 28, 35 is 42.

5. A number that divides another number exactly is called a factor.

III. True or False

- 1. The multiples of 3 include 3, 6, 9 and 1 2. — **Answer: True**
- 2. The next number in the sequence 4, 8, 1 2, 1 6 is 8. — **Answer: False**
- 3. Every number is a multiple of 5. — **Answer: False**
- 4. The LCM of 2 and 3 is 6. — **Answer: True**
- 5. The factors of 1 0 include 2 and 5. — **Answer: True**

IV. Answer the Following Questions

1.**What is a multiple**?

A multiple is a number obtained by multiplying a given number by a whole number.

Example: The multiples of 3 are 3, 6, 9, 1 2, 1 5, and so on.

2.**What is a factor**?

A factor is a number that divides another number exactly without leaving a remainder.

3.Write the first five positive multiples of 6.

Answer: 6, 1 2, 1 8, 24, 30.

4.Write the factors of 12.

Answer: 1 , 2, 3, 4, 6, 1 2.

5.What are common multiplGive anes? example.

Common multiples are numbers that are multiples of two or more numbers.

Example: Find the common multiples of 2 and 3.

Multiples of 2: 2, 4, 6, 8, 1 0, 1 2, 1 4, 1 6, 1 8, ...

Multiples of 3: 3, 6, 9, 1 2, 1 5, 1 8, ...

Common multiples: 6, 1 2, 1 8, ...

6.What is an animal jump?

An animal jump is the distance an animal covers in one leap or jump

V. Find the Common Factors of the Following Pairs of Numbers

1.**12 and 16**
Factors of 12 :1,2,3,4,6,12
Factors of 16: 1,2,4,8,16
Common factors: 1,2,4

2.**2 and 9**
Factors of 2 : 1,2
Factors of 9: 1,3,9

Common factors:1

3.**20 and 5**
Factors of 20: 1,2,4,5,10,20
Factors of 5:1,5
Common factors : 1,5

Chapter 14: Maps and Locations

I. ONE-MARK QUESTIONS

I. **What are the four main directions?**
Ans: North, South, East, and West.

II. **What is a map?**
Ans: A map is a drawing of a place seen from above.

III. **What is a compass used for?**
Ans: A compass is used to find directions.

IV. **What are symbols on a map?**
Ans: Symbols represent places or objects on a map.

V. **Name the instrument used to find directions.**
Ans: Compass

II. FILL IN THE BLANKS

I. The Sun rises in the **East**.

II. The path followed to reach a place is called a **route**.

III. A grid consists of **rows** and **columns**.

IV. A metro map shows **metro lines and stations**.

V. A map key explains the **symbols** on a map.

III. TRUE OR FALSE

1) South is opposite to North.	**True**
2) A map cannot show roads.	**False**
3) A route shows how to travel from one place to another.	**True**
4) A metro map shows only houses.	**False**

IV. CHOOSE THE CORRECT ANSWER

- **A map showing roads and buildings is called a:**
  Street map b) Storybook c) Calendar
  Answer: a) Street map
- **A map key explains:**
  Symbols b) Stories c) Numbers only
  Answer: a) Symbols
- **The path taken to reach a destination is a:**
  Landmark b) Route c) Symbol
  Answer: b) Route

V. SHORT ANSWER QUESTIONS

1) Ravi is facing the rising Sun. Which direction is he facing?

> **Explanation:** The Sun rises in the East.

Ans: Ravi is facing East.

2) Meena is facing North. She turns right. Which direction is she facing now?

> **Explanation:** When facing North, a right turn points towards East.

Ans: Meena is facing East.

CHAPTER 15: DATA THROUGH PICTURES

I. Choose the Correct Answer

1. Information collected is called:

a) Story b) Data c) Poem d) Game

Answer: b) Data

2. Which picture helps us understand data easily?

a) Picture graph (pictograph) b) Map c) Letter d) Story

Answer: a) Picture graph (pictograph)

3. Which of these is an example of data?

a) A poem b) Number of students watching TV c) A storybook d) A drawing

Answer: b) Number of students watching TV

4. The main purpose of a pictograph is to:

a) Tell a story b) Draw pictures c) Write a poem d) Show data clearly

Answer: d) Show data clearly

II. Match the Following

Column A	Column B
1. Pictograph	a. Information collected
2. Bar graph	b. Used for counting
3. Data	c. Pictures used to show data
4. Tally marks	d. Bars used to represent data
5. Scale	e. Value represented by one unit

Correct matches: 1–c, 2–d, 3–a, 4–b, 5–e.

III. Answer the Following

1. What is data? Give one example.

Answer: Data is a collection of facts and information. Example: Marks of students.

2. Why do we collect data?

Answer: We collect data to:

i) Organize information.

ii) Compare information and make decisions.

3. What are primary data and secondary data?

Answer: Primary data: Data collected directly by us. Secondary data: Data collected by others and used by us.

4. What is a tally mark? Why is it used?

Answer: A tally mark is a counting mark. It is used to count and record data easily.

5. What is a pictograph? Give one example.

Answer: A pictograph is a graph that uses pictures or symbols to represent data. Example: If one apple symbol represents 5 apples, then two symbols represent 10 apples.

6. What is a bar graph?

Answer: A bar graph is a graph that uses rectangular bars to represent data.

IV. Fill in the Blanks

1. **Data** is a collection of information.
2. A pictograph represents data using pictures.
3. A **pictograph** helps us compare data.
4. If one picture represents 5 objects, then 3 pictures represent **15** objects.
5. If one symbol represents 2 students, then 4 symbols represent **8** students.

V. Problems

1. Use the following pictograph to answer the questions.

Favourite Games of Students

Key: One football symbol = 2 students

Game	Pictograph (each symbol = 2)	Students
Football	• • • •	8
Cricket	• • • • •	10
Hockey	• •	4
Badminton	• • •	6

a) **How many students like football?**

Answer: 8 students like football.

b) **How many students like cricket?**

Answer: 10 students like cricket.

c) **Which game is liked by the fewest students?**

Answer: Hockey is liked by the fewest students.

d) **How many students like badminton?**

Answer: 6 students like badminton.

e) **How many students are represented altogether?**

Answer: Football = 8; Cricket = 10; Hockey = 4; Badminton = 6.
Total = 8 + 10 + 4 + 6 = 28 students.

f) **How many more students like cricket than hockey?**

Answer: 10 − 4 = 6 students.

2. The following table shows the favourite fruits of students in a class.

Name of Fruit	Number of Students
Mango	10
Apple	8
Banana	6
Orange	4

a) **Which fruit is liked by the most students?**

Answer: Mango is liked by the most students.

b) **Which fruit is liked by the fewest students?**

Answer: Orange is liked by the fewest students.

c) **How many students like apples?**

Answer: 8 students like apples.

d) **How many students like mangoes?**

Answer: 10 students like mangoes.

e) **How many students are represented altogether?**

Answer: 10 + 8 + 6 + 4 = 28 students.

3. The pictograph shows the number of books read by four students in one month.

Key: One book symbol = 3 books

Student	Pictograph (each symbol = 3 books)	Books Read
Anu	• •	6
Ravi	• • • •	12
Meena	• • •	9
Rahul	• • • • •	15

a) **How many books did Anu read?**

Answer: 2 × 3 = 6 books.

b) **Who read the greatest number of books?**

Answer: Rahul read the greatest number of books.

c) **How many books did Meena read?**

Answer: 3 × 3 = 9 books.

d) **How many books did Anu and Ravi read together?**

Answer: Anu = 6 books; Ravi = 12 books. 6 + 12 = 18 books.

e) **How many books did all four students read?**

Answer: 6 + 12 + 9 + 15 = 42 books.

f) **How many more books did Rahul read than Anu?**

Answer: 15 − 6 = 9 books.