પુ॰ના International School
Shree Swaminarayan Gurukul, Zundal

Class -V
Math - magic
Sample Copy
Year- 2022-23

CHAPTER - 8 MAPPING YOUR WAY

❖ **EXERCISE POINT**

- Introduction
- Convert centimeter to millimeters
- Convert kilometer into centimeters
- Map 1, 2, 3, 4,….. (in text book)
- Activity

❖ **Introduction:**

- **Define:**

Map: A map is a visual representation of an entire area or part typically represented on a flat surface.

1 Kilometer =	**1000 meters**
1 meter =	**100 centimeters**
1 centimeter =	**10 millimeters**
1 kilometers =	**100,000 centimeters**

- Convert centimeter to millimeters:-

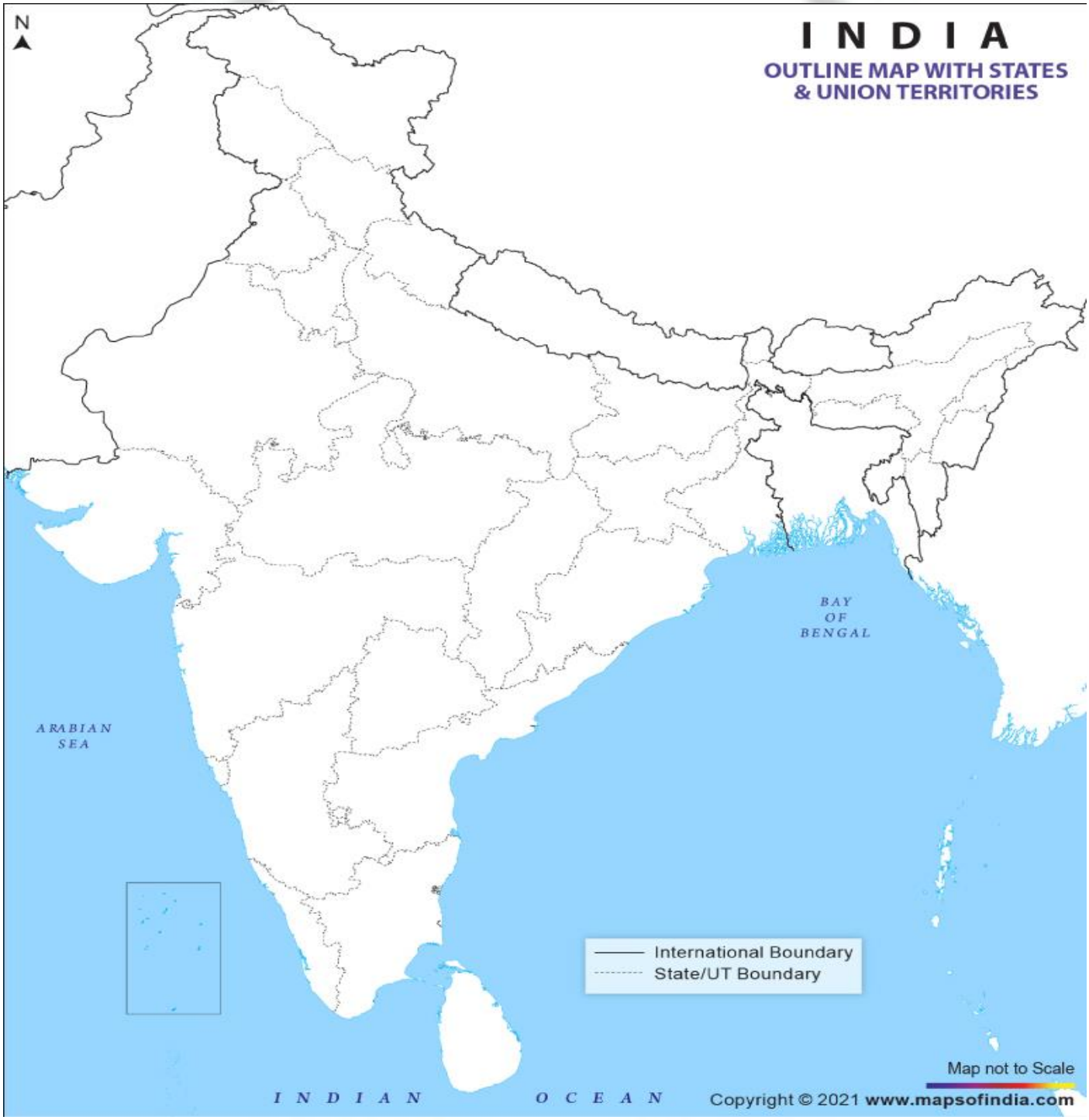
a) 15 cm = 15 × 10 = 120 mm
b) 55 cm =
c) 76 cm =
d) 65 cm =
e) 114 cm =

- Convert kilometer to centimeters:-

a) 23 km = 23 × 100000 = 2300000 cm
b) 85 km =
c) 90 km =
d) 196 km =
e) 200 km =

Activity:

- **Show union territories on India's map.**



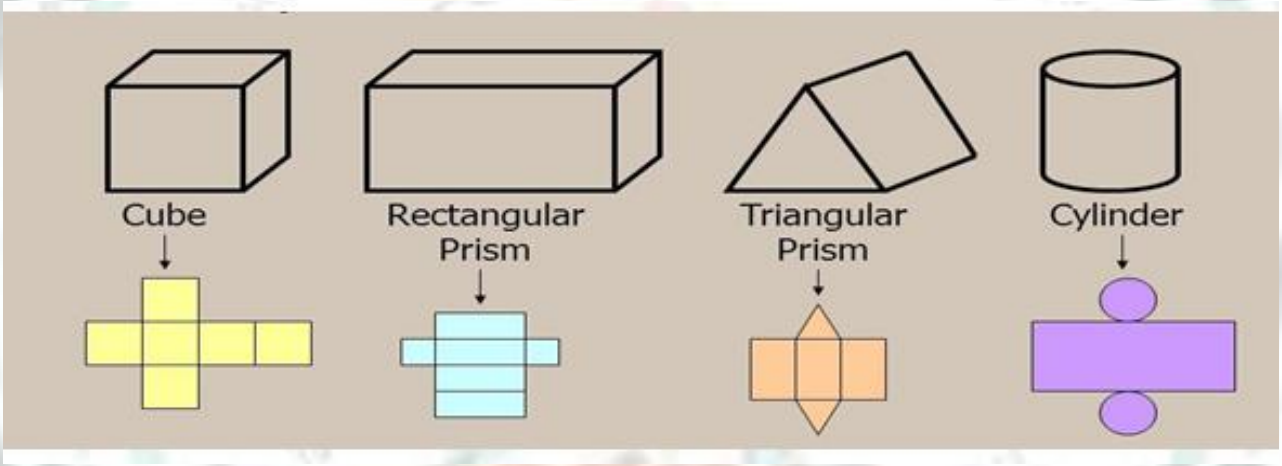
CHAPTER -9 BOXES AND SKETCHES

❖EXERCISE POINT

- Introduction
- Activity

❖ Introduction:

- 3- D shapes : Shapes having length, breadth and height are called 3-D shapes. For eg – cube, cuboid, boxes, etc
- 2-D shapes: Shapes having length and breadth only are called 2-D shapes. For eg- squares, rectangle, etc
- We represent 3-D shapes on the paper in 2D. The representation is done by nets .For eg- Cube, Rectangular Prism, Triangular Prism, Cylinder, etc.



❖ **Activity**:

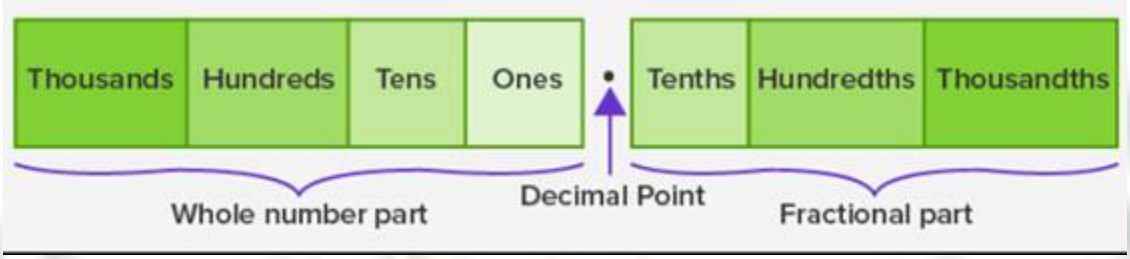
- **Make a sweet box. (Refer Text book pg.no.126 and 201)**

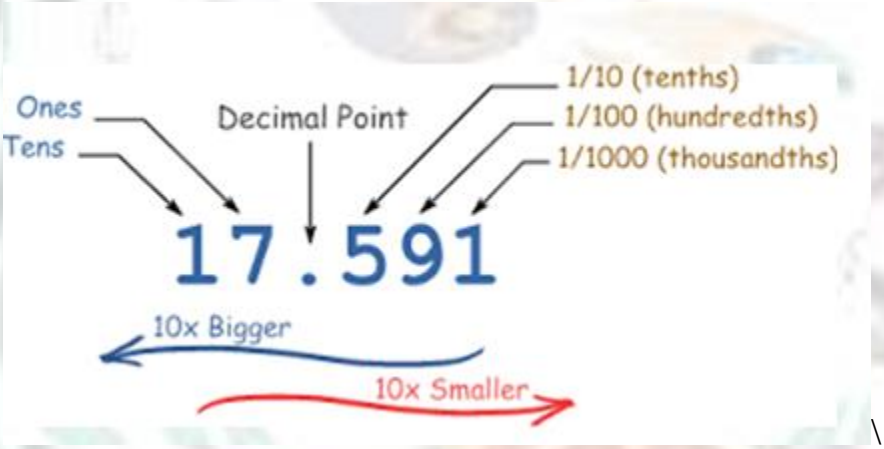
CHAPTER -10 TENTHS AND HUNDREDTHS

❖ **Exercise point:**

- Introduction
- Convert fraction into decimal.
- Write as mixed numerical.
- Comparing using < , > or = .
- Arrange in ascending and descending order.
- Word problems.
- Fill in the blanks.
- Activity (in textbook)

❖ Introduction:





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❖ Convert fraction into decimal:

a) $\frac{457}{100}$ = 4.57

b) $\frac{5}{10}$ = 0.5

c) $\frac{60}{10}$ = 6.0

d) $\frac{870}{100}$= 8.70

e) $\frac{35}{100}$ = 0.35

f) $\frac{93}{100}$ = 0.93

g) $\frac{5}{100}$ = 0.05

❖ **Write as mixed numerals:**

a) $2.84 = 2\frac{84}{100}$

b) $39.75 = 39\frac{75}{100}$

c) $77.77 = 77\frac{77}{100}$

d) $9.12 = 9\frac{12}{100}$

e) $281.4 = 281\frac{4}{10}$

❖ **Comparison use sign (>,< or =)**

a) 99.5 > 99.05
b) 0.734 > 0.374
c) 369.5 > 3.695
d) 0.005 = 0.005
e) 6.49 < 64.9
f) **75. 1** > 7.51
g) **2. 87** = (2.32 + 0.55)

❖ **Arrange in ascending order:**

1)	**2.35, 22.35,0.235,2.325**
Ans	0.235,2.325,2.35,22.35
2)	**7.64,77.064,7.46,77.604**
Ans	7.46,7.64,77.064,77.604
3)	**1.05,3.05,0.05,2.05**
Ans	0.05,1.05,2.05,3.05
4)	**2.09,9.02,2.90,9.20**
Ans	2.09,2.90,9.02,9.20

❖ **Arrange in descending order:**

1)	**4.87, 4.78, 8.74, 8.47**
Ans	8.74, 8.47, 4.87,4.78
2)	**2.08, 2.80, 8.02, 8.20**

Ans	8.20, 8.02, 2.80, 2.08
3)	**9.054, 9.045, 9.450, 9.540**
Ans	9.540, 9.450, 9.054, 9.045

❖ **Word problems:**

1) Monika buy Rs 8.25 for chips and Rs 5.75 for chocolates. How much money did she pay?

Solution :

Monika buy chips = Rs. 8.25

She buy chocolates = Rs. 5.75

Total money she paid = Rs. 8.25 + Rs. 5.75

$$\begin{array}{r} 8.25 \\ +\ 5.75 \\ \hline 14.00 \end{array}$$

She paid Rs 14.00 to the shopkeeper.

2) Rohit had Rs 150. He bought sugar for Rs 19.50, rice for Rs 90 and biscuit for Rs 28.25. How much money was he left with?

Solution: Rohit had Rs 150

19.50 he bought sugar
\+ 90.00 he bought rice
\+ 28.25 he bought biscuit
137.75 Total he purchase

Total money Rohit left with him = 150 - 137.75 = Rs 12.25.

❖ **Fill in the blanks:**

a) 3 cm 4 mm is equal to **3.4** cm.
b) 7.8 cm is equal to **7** cm and **8** mm.
c) 15.4 cm is equal to **15** cm and **4** mm.
d) 0.9 cm is equal to **0** cm and **9**mm.
e) 21 cm 3 mm is equal to **21.3** cm.
f) 8 mm is equal to **0.8** cm.

❖ **Activity:**

Using the scale and find the difference in length of candles and flame (Do In Text book page no - 136)

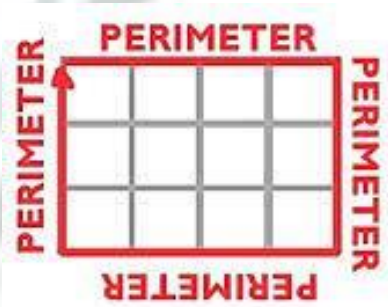
Length of	*Length in cm and mm*	*Length in cm*
Candle 1		
Flame 1		
Candle 2		
Flame 2		
Candle 3		
Flame 3		

CHAPTER -11 AREA AND IT' S BOUNDARY

❖ **Exercise points**

- Introduction
- Find the perimeter (using figure)
- Find the missing length (with help of perimeter)
- Word problem
- Fill in the blanks
- Activity

❖ **Introduction:**



Define- Perimeter: The total length of all the line segments of a closed figure is called its perimeter.

• Perimeter of rectangle= 2(length + breadth)
= 2(l + b)

• Perimeter of square = 4×length= 4×l

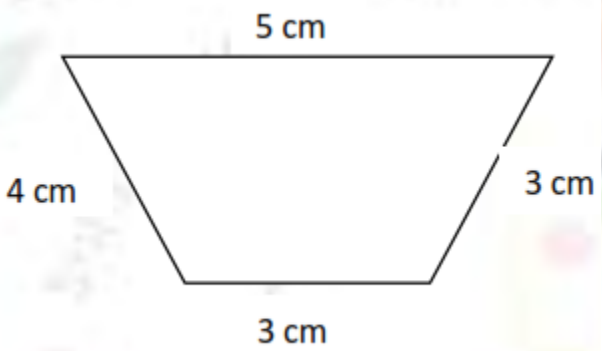
Define- Area: The region enclosed between boundaries of a figure.

• Area of rectangle = Length × Breadth

• Area of square = length × Length

❖ **Find the perimeter using figure:**

1)

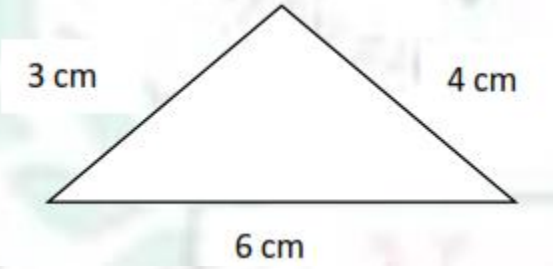


Solution

Perimeter = sum of all the sides

= 5 cm + 4 cm+ 3 cm + 3 cm
= 15 cm.

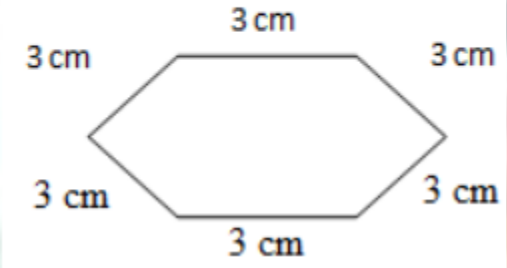
2)



Solution

Perimeter = sum of all the sides
= 3 cm + 4 cm + 6 cm
= 13 cm.

3)

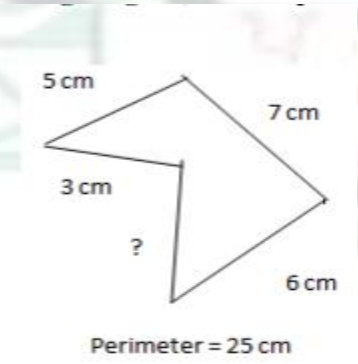


Solution

Perimeter = sum of all the sides
=3 cm + 3 cm + 3 cm + 3 cm + 3 cm + 3 cm
= 18 cm.

❖ **Find the missing length (with help of perimeter):**

1)

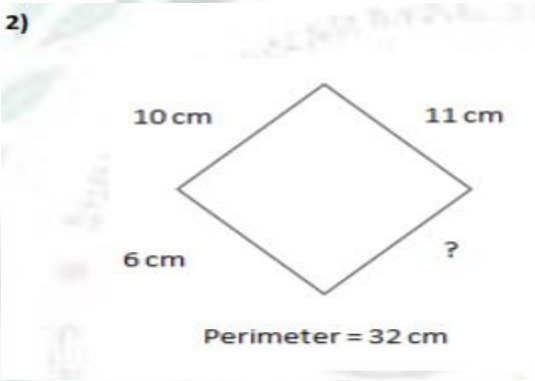


Solution

5 cm + 7 cm + 6 cm + 3 cm + x = 25 cm
21 cm + x = 25 cm

x = 25cm - 21cm
x = 4 cm.

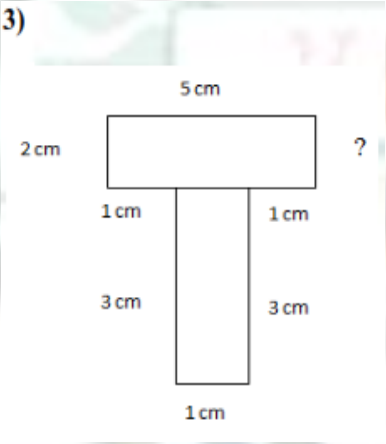
2)



Solution

10 cm + 11 cm + 6 cm + x = 32 cm
27 cm + x = 32 cm
x = 32 cm – 27 cm
x = 5 cm

3)



Perimeter = 18 cm

Solution

5cm + 2cm + 1cm +3cm + 1cm + 3cm + 1 cm + x = 18 cm
16cm + x = 18cm
x = 18cm – 16cm
x = 2 cm.

❖ **Word problems:**

1) **The area of rectangular plot is 225 sq m. If the width of it is 9 m. What is the length of a rectangular plot?**

Solution: Here, Area of rectangle = 225 sq m.

Width = 9 m
Length =?
Area of rectangle = length × width

$$\text{Length} = \frac{\text{Area of rectangle}}{Width}$$

$$= \frac{225}{9}$$

= 25 m
Length = 25 m.

The length of a rectangular plot is 25 m.

2) The area of rectangular plot is 84 sq m. If the length of it is 12 m. What is the width of a rectangular plot?

Solution: Here, Area of rectangle = 84 sq m
Length = 12 m
Width =?

$$\text{Width} = \frac{Area\ of\ rectangle}{Length}$$

$$= \frac{84}{12}$$

= 7 m
Width = 7 m

The width of a rectangular plot is 7 m.

3) The area of rectangular Splot is 375 sq m. If the length of it is 15 m. What is the width of a rectangular plot?

Solution: Here, Area of rectangle = 375 sq m.
Length = 15 m
Width =?

$$\text{Width} = \frac{Area\ of\ rectangle}{Length}$$

$$= \frac{375}{15}$$

= 25 m
Width = 25 m

The width of a rectangular plot is 25 m.

❖ Fill in the blanks:

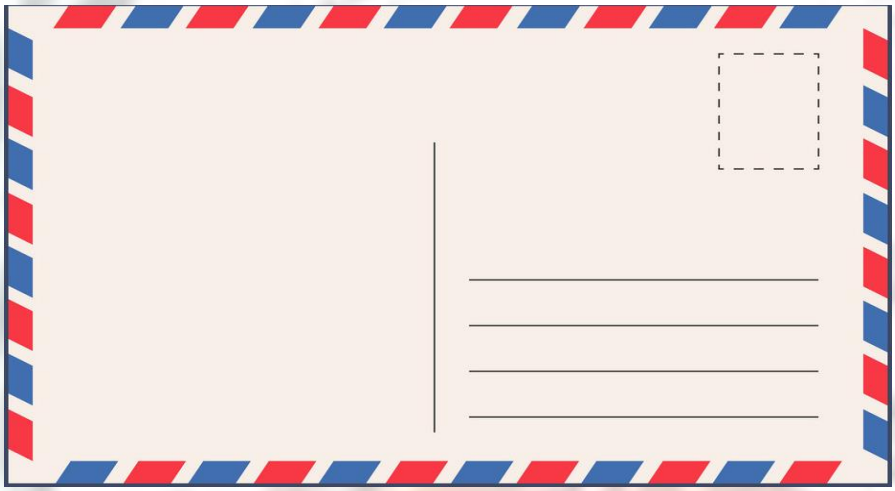
1. The distance around a square field can be calculated using formula **4 × length.**

2. **Area** is region enclosed between the boundaries of a figure.
3. The measurement of length and breadth is needed to calculate the area of a **rectangle.**
4. A rectangle plot is 25 m × 15 m in dimensions. The total wire needed to fence around it is **80 m.**

❖ **Activity:**

- **Find the area of any postcard and stamps.**

For eg.



Area of post card =?

Area of stamp =?

CHAPTER – 12 SMART CHARTS

❖ **Exercise Point**

- Introduction
- Show the tally mark
- Look the bar graph and complete the blanks
- Pie chart

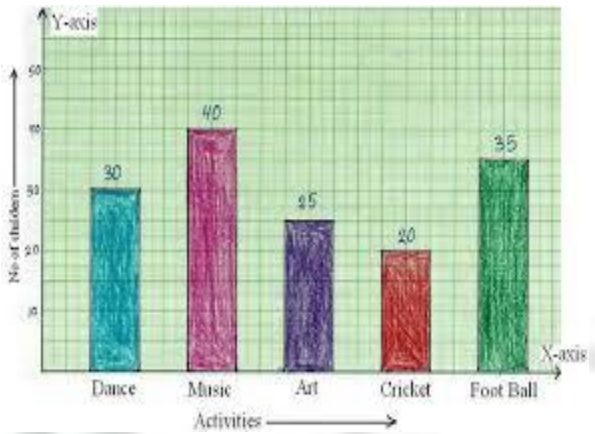
❖ **Introduction:**

- **Define - Data:** Data is collection of facts or information.
- Data collection can be done in different ways for example tally marks, bar graph, pie chart, etc.

- **Tally Marks**

Numbers	Tally marks
1	𝍸
2	𝍸𝍸
3	𝍸𝍸𝍸
4	𝍸𝍸𝍸𝍸
5	𝍸
6	𝍸𝍸
7	𝍸𝍸𝍸
8	𝍸𝍸𝍸𝍸
9	𝍸𝍸𝍸𝍸𝍸
10	𝍸𝍸

- **Bar graph:** A bar graph can be defined as a chart or a graphical representation of data, quantities or numbers using bars or strips.



- **Pie – charts:** A **pie chart** is a circle chart which is divided into slices to illustrate numerical proportion.

❖ **Show the tally marks foe the following information-**

[A]

Animals	Cats	Dogs	Rabbits	Cows	Parrots	Goats	Squirrels
Numbers	25	10	9	13	15	20	3

Answer

Animals	Tally Marks	Numbers
Cats	𝍸 𝍸 𝍸 𝍸 𝍸	25
Dogs	𝍸 𝍸	10
Rabbits		9
Cows		13
Parrots		15
Goats		20
Squirrels		3

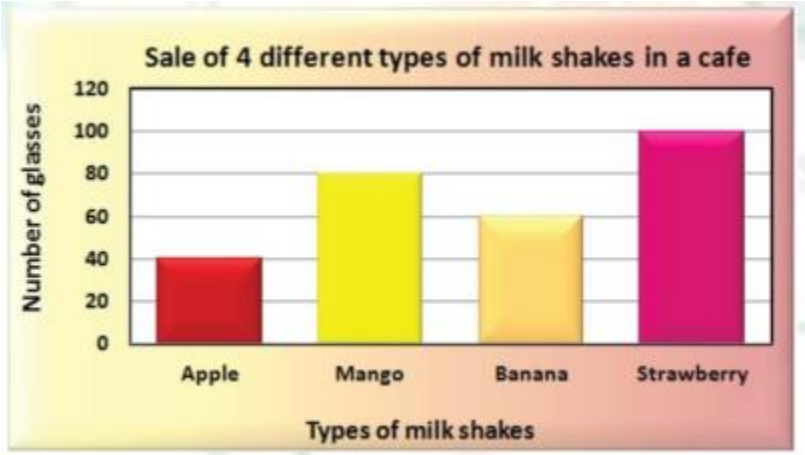
[B]

Juice	Apple	Orange	Pineapple	Guava	Litchi	Mixed fruit
Number	24	26	19	8	14	24

Answer

Juice	Tally Marks	Numbers
Apple		24
Orange		26
Pineapple		19
Guava		8
Litchi		14
Mixed fruit		24

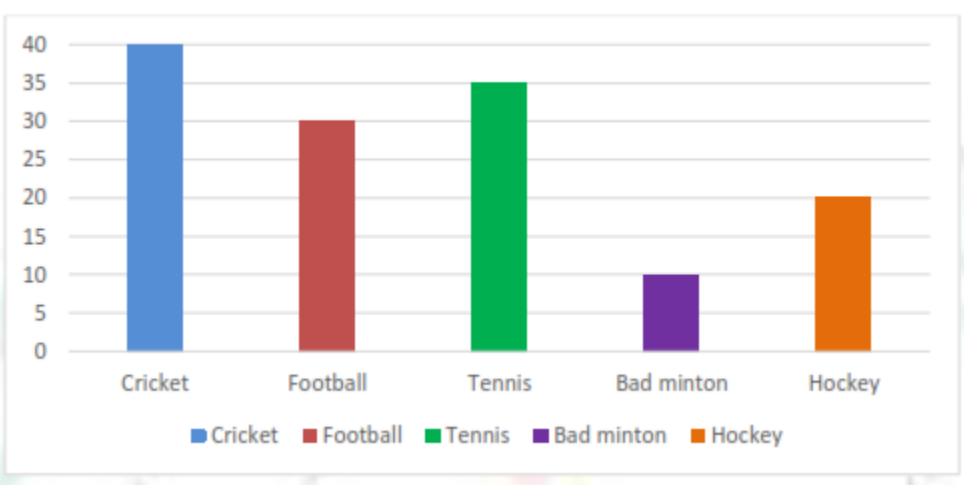
- **The graph below shows the sale of 4 different milk shakes in a café on a Sunday see the graph and answer the question:**



- **Complete the blanks –**

1) If a glass of banana shakes costs Rs 15, how much did the café owner earn from the sale of banana shakes?
   Ans - 15 ×60 = 900.
2) Which shake is preferred by most number of children?
   Ans - Strawberry.
3) Least favorite juice is **Apple.**
4) Find the total number of shakes sold on Sunday?
   Ans - 40 + 80 + 60 + 100 = 280.
5) What is difference between apple shake and mango shake sold?
   Ans - 80 – 40 = 40.

- **Look the bar graph below and answer the question:**



1) Which sport is played by the maximum number of students?

Ans: Cricket

2) **How many students play football?**

Ans: 30 students

3) **How many students go for tennis?**

Ans: 35 students

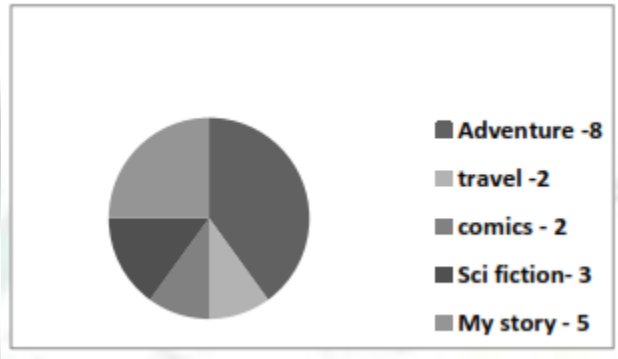
4) **Which game is played the least by the students?**

Ans: Bad Minton

5) **How many like to play hockey?**

Ans: 20 students

❖ **Look at the data shown in the pie chart given below. Answer the following questions**



1) The survey was carried out on **20** children.
2) Adventure books are read by **8** children.
3) More number of children read **My story** and **Adventure** books than Science Fiction.
4) The same number of children read **Comics** and **Travel** books.

CHAPTER - 13 WAYS OF MULTIPLY AND DIVIDE

❖ **Exercise point**

- Multiplication
- Divide and check your results
- Word problem
- Fill in the blanks
- Activity

❖ **Multiplication**

1) 173 × 48

$$\begin{array}{r} 173 \\ \times\ 48 \\ \hline 1384 \\ +\ 6920 \\ \hline 8304 \end{array}$$

2) 385 × 56

$$\begin{array}{r} 385 \\ \times\ 56 \\ \hline 2310 \\ +\ 19250 \\ \hline 21560 \end{array}$$

3) 7456 × 28

$$\begin{array}{r} 7456 \\ \times\ 28 \\ \hline 59648 \\ +\ 149120 \\ \hline 208768 \end{array}$$

4) 5638 × 68

$$\begin{array}{r} 5638 \\ \times\ 68 \\ \hline 45104 \\ +\ 338280 \\ \hline 383384 \end{array}$$

5) 6367 × 96

$$\begin{array}{r} 6367 \\ \times\ 96 \\ \hline 38202 \\ +\ 573030 \\ \hline 611232 \end{array}$$

❖ **Divide and check your result:**

1) 4320 ÷ 7

$$\begin{array}{r|l} & 617 \\ \hline 7 & 4320 \\ & -42 \\ \hline & 012 \\ & -\ 7 \\ \hline & 50 \\ & -49 \\ \hline & 01 \end{array}$$

4) 768 ÷ 6

$$\begin{array}{r|l} & 128 \\ \hline 6 & 768 \\ & -6 \\ \hline & 16 \\ & -12 \\ \hline & 048 \\ & -48 \\ \hline & 00 \end{array}$$

Check: Q × D + R = Dd

617 × 7 + 1 = Dd

4319 + 1 = Dd

4320 = Dd

Check: Q × D + R = Dd

128 × 6 + 0 = Dd

786 + 0 = Dd

768 = Dd

2) 3946 ÷ 3

```
    1315
3 | 3946
   -3
   ----
    09
   - 9
   ----
    004
     -3
   ----
      16
     -15
   ----
      01
```

Check: Q × D + R = Dd

1315 × 3 + 1 = Dd

3945 + 1 = Dd

3946 = Dd

5) 969 ÷ 4

```
    242
4 | 969
   -8
   ----
    16
   -16
   ----
    009
     -8
   ----
      1
```

Check: Q × D + R = Dd

242 × 4 + 1 = Dd

968 + 1 = Dd

969 = Dd

3) 5281 ÷ 15

```
      352
15 | 5281
    -45
     78
    -75
     031
    - 30
      01
```

Check: Q × D + R = Dd

352 × 15 + 1 = Dd

5280+ 1 = Dd

5281 = Dd

❖ **Word problems:**

1) **945 chocolates are to be distributed among 63 students. Find the number of chocolates each student will get.**

Solution: Total number of chocolates = 945
No of students = 63
The number of chocolates each student gets = 945 ÷ 63

```
        1 5
63 | 9 4 5
    -6 3
     3 1 5
     3 1 5
     0 0 0
```

15 chocolates each student will get.

2) **Soham drinks 8 glasses of water every day. How many glasses he drinks in a year?**

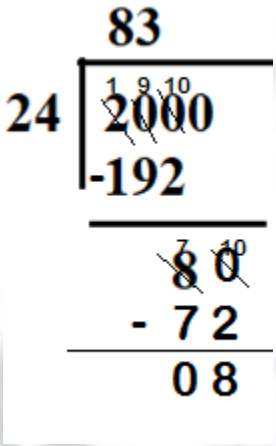
Solution: No. of glasses of water he drinks in a day = 8
No of days in a year = 365
No of glasses of water he drinks in a year = 365 × 8

```
  ⑤ ④
  3  6  5
x       8
  2 9 2 0
```

Soham drinks 2920 glasses of water in a year.

3) **Anita bought a battery. She read on it life 2000 hours. She uses it throughout the day and night. How many days will the battery run?**

Solution: No. life hours of a battery = 2000
No. of hours in a day = 24
No. of days battery will run = 2000 ÷ 24



The battery will run 83 days and 8 hours.

4) **Garima has Rs 500 with her. She wants to buy milk whose cost is Rs 50 per litre. How many liters of milk can she buy?**

Solution: No. of money Garima has = Rs 500
Cost of milk per litre = Rs 50
No. of liters of milk she can buy = 500 ÷ 50
= 10 litters
Garima can buy 10 liters of milk.

❖ **Fill in the blanks**

1) The number to be multiplied in the **multiplicand**.
2) The number with which use multiply is the **multiplier**.
3) The answer in multiplication is the **product.**
4) Repeated **addition** is known as multiplication.
5) 934 × **726** = **934**× 726
6) **9728** × 1 = 9728
7) 9869 × **0** = 0
8) **135**× (297 × 517) = (517 ×**297**) × 135
9) 8304 × **1** = 8304
10) Quotient × divisor = **dividend**
11) Quotient ×**divisor** + remainder = dividend

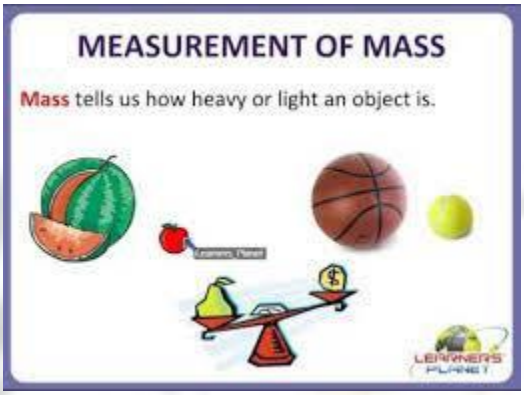
CHAPTER – 14 HOW BIG? HOW HEAVY?

❖ **Exercise Point**

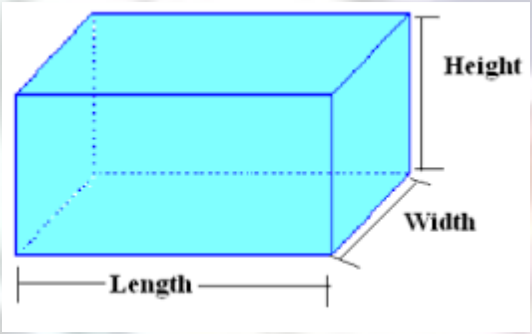
- **Introduction**
- **Find the volume of cube/ cuboid**
- **Word problem**
- **Fill in the blanks**
- **Activity**

❖ **Introduction:**

- **Define Mass** -Mass is a measure of the amount of matter in an object.
- Mass is measure in kilogram (kg).
- 1 gram = 1000 milligram.



- **Define Volume -** The Space occupied by the solid it's called Volume.
- Volume of Cube = Side × Side × Side = (Side)3
- Volume of Cuboid = Length × Width × Height
- Volume is measure in terms of cubic unit.



- **Find the volume of cube/ cuboid**

No.	Cube/ cuboid			Volume = l x b x h =l x l x l
	Length	Breadth	Height	
1	6 cm	4 cm	3 cm	= 72 **cm3**
2	12 cm	5 cm	5 cm	= 300 **cm3**
3	15 cm	15 cm	15 cm	= 3375 **cm3**
4	8 cm	8 cm	8 cm	= 512 **cm3**

❖ **Word Problems:**

1) A Match box measure 5 cm × 3 cm × 2 cm find its volume.

Solution:

Volume = length × width × height

= 5 cm × 3 cm × 2 cm
= 30 cm3

2) The dimensions of a pencil box are 10 cm × 5 cm × 2 cm. Find its volume.

Solution:

Volume of pencil box = 10 cm × 5 cm × 2 cm
= 100 cm3

3) How many soap cakes of dimensions 10 cm × 8 cm × 6 cm can be packed in a box having dimensions 10 cm × 60 cm × 40 cm?

Solution:

Volume of box = 10 cm × 60 cm × 40 cm
= 24000 cm3

Volume of Soap = 10 cm × 8 cm × 6 cm
= 480 cm3

$$\text{No. of soaps} = \frac{Volume\ of\ box}{Volume\ of\ soap}$$

$$= \frac{24000}{480}$$

= 50

50 soaps can be packed in a given box.

4) How many bricks of length 20 cm, breadth 4 cm and height 6 cm will be needed to build a wall of length 10 cm, thickness 6 cm and height 2 m?
(Hint - 1m = 100cm)

Solution: Here, Height - 2 m = 200 cm

Volume of wall = 10 cm × 6 cm × 200cm
= 12000 cm3

Volume of brick = 20 cm × 4 cm × 6 cm
= 480 cm3

$$\text{No. of bricks} = \frac{Volume\ of\ wall}{Volume\ of\ brick}$$

$$= \frac{12000}{480}$$

= 25

25 bricks needed to build a given wall.

❖ **Fill in the blanks:**

1) The space occupied by a solid is its**Volume.**
2) Two solids of the same shape and same size have **same** volume.
3) Volume is **three** dimensional.
4) Volume is measured in terms of **Cubic** Unit.
5) Volume of liquids is measured in **liters**
6) 1 liter = **1000**cubic cm.
7) 1 cubic meter = **1000**liters
8) **Mass** is a measure of the amount of matter in an object.

❖ **Activity**

Find the volume of match box.