

# **CLASS IV**

**TERM II**

**2023-2024**

## ***MATHEMATICS***

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**Fill in the blanks**

- a. \_\_\_\_\_ means shape and design repeated in certain manner.
- b. \_\_\_\_\_ can be found in designs, tiles, numbers, alphabet series etc.
- c. Pattern can be growing or \_\_\_\_\_ in nature.
- d. Arrangement of numbers which has a mathematical relationship is called \_\_\_\_\_ pattern

**2. Extend the number pattern by two steps.**

a) Addition Pattern

$1+2+3 = 6$

$2+3+4 = 9$

$3+4+5 = 12$

$4+5+6 = 15$

$5+6+7 = \underline{\hspace{2cm}}$

$6+7+8 = \underline{\hspace{2cm}}$

b) Pattern in Multiplication

$1 \times 1 = 1$

$11 \times 11 = 121$

$111 \times 111 = 12321$

$1111 \times 1111 = 1234321$

$11111 \times 11111 = \underline{\hspace{2cm}}$

$111111 \times 111111 = \underline{\hspace{2cm}}$

c) Pattern in division

$111 \div 37 = 3$

$222 \div 37 = 6$

$333 \div 37 = 9$

$444 \div 37 = 12$

$555 \div 37 = 15$

$666 \div 37 = \underline{\hspace{2cm}}$

$777 \div 37 = \underline{\hspace{2cm}}$

**3. Observe the patterns given below and complete them.**

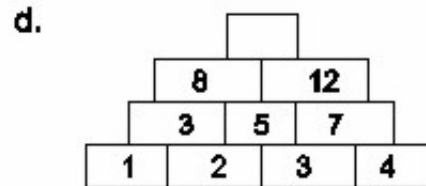
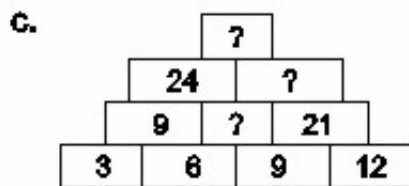
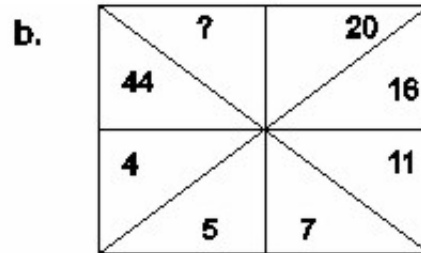
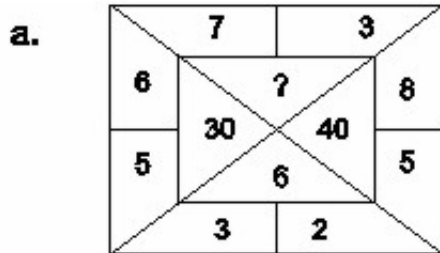
1)  \_\_\_\_\_

2)  \_\_\_\_\_

3)  \_\_\_\_\_

4)  \_\_\_\_\_

Find the missing term in given figure



2. Observe the pattern and fill missing terms

- a) 5, 9, 13, 17 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- b) 3, 9, 27, 81 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- c) 2, 5, 11, 23 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

3. Tick (✓) the correct answers :

- a) 1, 3, 6, 10, 15 \_\_\_\_\_

i) 22                      ii) 21                      iii) 23                      iv) 24

- b) 256, 128, 64 \_\_\_\_\_

i) 32                      ii) 16                      iii) 8                      iv) 34

- c) 5, 10, 17, 26, 37, ?

i) 47                      ii) 59                      iii) 50                      iv) 62

Tick (✓) the correct answer :

I) 3, 6, 10, 15, ?

a) 22

b) 21

c) 23

d) 24

II) 256, 128, 64, ?

a) 32

b) 16

c) 8

d) 34

III) 1, 4, 9, 16, 25, ?

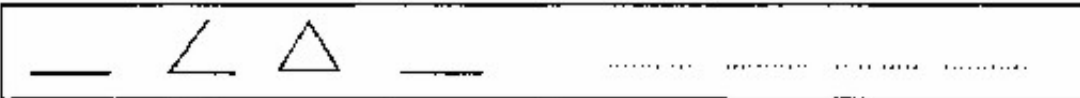
a) 30

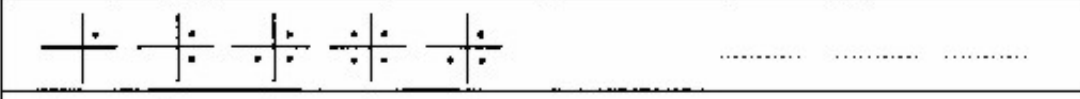
b) 49

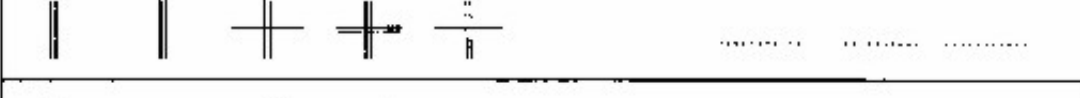
c) 26


d) 36

Observe the patterns given below and complete them.

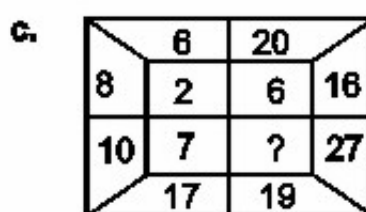
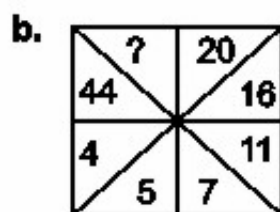
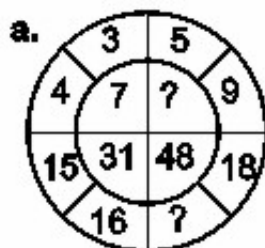
a) 

b) 

c) 

d) 

Study the pattern and fill in the missing terms.

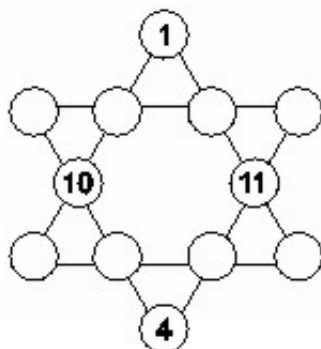


Observe the pattern and fill the missing terms.

a) 2, 5, 11, 23 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

b) 7, 11, 19, 35 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Use number 1 to 12 each only once and complete the hexagram so that the sum of each straight row of four circles.



**Fill In the blanks**

- I. The gap between then and now is called \_\_\_\_\_.
- II. There are \_\_\_\_\_ hours in a day.
- iii. a.m. \_\_\_\_\_ (means before midday)
- iv. p.m. \_\_\_\_\_ (means after midday) or after noon.
- v. The 12 hours from midnight to noon are denoted by \_\_\_\_\_.
- vi. The 12 hours from noon to midnight are denoted by \_\_\_\_\_.
- vii. In 24 hours clock time, time is expressed in \_\_\_\_\_ digits.
- viii. The first 2 digits on left denote hours and next two digits are for \_\_\_\_\_.
- ix. After 12 noon we add \_\_\_\_\_ hrs to get 24 hrs clock time.
- x. a.m. and p.m. are replaced by \_\_\_\_\_ in 24 hrs clock time.
- xi. We do not use am or pm with. 12.00 noon or \_\_\_\_\_.
- xii. Time is very precious and time never comes again so never \_\_\_\_\_ time.
- xiii. The time quarter to 7 can be written as \_\_\_\_\_.
- xiv. If the time is 10 min. to 7, it can be written as \_\_\_\_\_.

**Fill In the blanks**

- i. When the number of years is completely divisible by \_\_\_\_\_ the year is leap year.
- ii. A leap year has \_\_\_\_\_ extra day.
- iii. In leap year February has \_\_\_\_\_ days.
- iv. A leap year has \_\_\_\_\_ days.
- v. Every fourth year is a \_\_\_\_\_ year.
- vi. February month has \_\_\_\_\_ days in a year which is not a leap year.
- vii. A \_\_\_\_\_ hand completes one round in 12 hours.
- viii. A \_\_\_\_\_ hand completes one round in 1 hour.
- ix. A \_\_\_\_\_ hand completes one round in 1 minute.
- x. 1 hour = \_\_\_\_\_ minute.
- xi. 1 fortnight = \_\_\_\_\_ days.
- xii. I have my lunch at 2:30 \_\_\_\_\_ (am/pm)
- xiii. 1 hour after 11:30 am = \_\_\_\_\_.
- xiv. 3 hours 40 min. before 3:20 am = \_\_\_\_\_.

**1. Encircle the leap years.**

- |      |      |      |      |      |
|------|------|------|------|------|
| i.   | 1860 | 1890 | 1900 | 1916 |
| ii.  | 1968 | 1700 | 1600 | 2000 |
| iii. | 2004 | 2100 | 2180 | 2200 |
| iv.  | 1920 | 2310 | 2648 | 2550 |

**2. Write the time in a.m. or p.m.**

- |    |                       |         |
|----|-----------------------|---------|
| a) | 7:30 In the morning   | 7:30 am |
| b) | 10:50 in the morning  | _____   |
| c) | 3:15 In the afternoon | _____   |
| d) | 10:20 at night        | _____   |

**3. Change the following timings into 24 hour clock timings.**

- |    |                   |    |                    |
|----|-------------------|----|--------------------|
| a) | 7:10 p.m. = _____ | c) | 9:15 a.m. = _____  |
| b) | 6:18 a.m. = _____ | d) | 11:40 p.m. = _____ |

**4. Change the following timings into 12 hour clock timings.**

- |    |                   |    |                   |
|----|-------------------|----|-------------------|
| a) | 0920 hrs. = _____ | c) | 1920 hrs. = _____ |
| a) | 1340 hrs. = _____ | d) | 1450 hrs. = _____ |

The system of units that we use for measurement is \_\_\_\_\_. In this system the next higher unit is \_\_\_\_\_ greater than previous one.

### Length

1. \_\_\_\_\_ is the measure of distance between two points.
2. Basic unit of length is \_\_\_\_\_.
3. To convert smaller unit into larger unit we \_\_\_\_\_.
4. To convert larger units into smaller units we \_\_\_\_\_.
5. Biggest unit of length is \_\_\_\_\_.
6. Smallest unit of length is \_\_\_\_\_.
7.  $1 \text{ km} = \underline{\hspace{2cm}} \text{ m}$
8.  $1 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$
9.  $1 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
10. To convert m and cm into cm we multiply number of m by \_\_\_\_\_ and \_\_\_\_\_ it to number of cm.
11. To convert km into m we multiply km by \_\_\_\_\_.
12. If number of cm is more than \_\_\_\_\_ we can express it in m and cm.
13. Kilo, Hecto, deca are \_\_\_\_\_ units
14. Deci, Centi, Milli are \_\_\_\_\_ units.
15.  $2.565 \text{ Km} = \underline{\hspace{2cm}} \text{ m}$ .
16.  $15 \text{ Kg} = \underline{\hspace{2cm}} \text{ gram}$ .



1. The basic unit of weight is \_\_\_\_\_.
2. To measure smaller weight we use \_\_\_\_\_.
3. To find how heavy an object is we use \_\_\_\_\_.
4. Biggest unit of mass is \_\_\_\_\_.
5. Smallest unit of mass is \_\_\_\_\_.
6.  $1 \text{ kg} = \text{_____ g}$ .
7.  $1 \text{ g} = \text{_____ mg}$ .
8. To convert kg into g we multiply by \_\_\_\_\_.
9. We buy rice, sugar, vegetable etc in \_\_\_\_\_ or \_\_\_\_\_ whereas weight of smaller object is expressed in \_\_\_\_\_.
10. If number of grams is more than 1000. We express it in \_\_\_\_\_ and \_\_\_\_\_.
11. Your weight = 35 \_\_\_\_\_
12.  $5 \text{ kg } 40 \text{ g} = \text{_____ g}$
13. a.  $3 \text{ g} = \text{_____ mg}$ .  
b.  $78 \text{ kg} = \text{_____ g}$ .

**Fill in the blanks :**

1. The capacity of a liquid is measured by measuring its \_\_\_\_\_.
2. Standard unit of volume or capacity is \_\_\_\_\_.
3. To measure very small capacity we use \_\_\_\_\_.
4. If number of ml is more than 1000 we can express it in \_\_\_\_\_ and \_\_\_\_\_.
5.  $1 \text{ kl} = \text{_____ L}$
6.  $1 \text{ L} = \text{_____ ml}$
7. To convert *l* to *ml* we multiply by \_\_\_\_\_.
8. To convert millilitre to litre we \_\_\_\_\_ by 1000.
9. The volume of water in cups is measured in \_\_\_\_\_.
10. The volume of water in a drum is measured in \_\_\_\_\_.

**2. Tick the closest measures.**

- |                          |                  |
|--------------------------|------------------|
| a) Milk in cat's bowl    | 100 ml / 100 L   |
| b) Oil in a can          | 5 ml / 5 L       |
| c) Juice in a bottle     | 1 ml / 1 L       |
| d) Water in storage tank | 1000 ml / 1000 L |

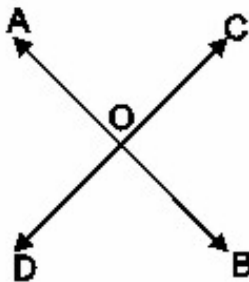
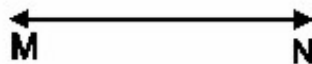
**Fill in the blanks :**

1. A \_\_\_\_\_ is the smallest shape in geometry.
2. A \_\_\_\_\_ can be extended on both sides.
3. A \_\_\_\_\_ has definite length.
4. A \_\_\_\_\_ is a part of line with one end point.
5. Line has \_\_\_\_\_ length.
6. \_\_\_\_\_ can be drawn on paper and can be measured.
7. \_\_\_\_\_ have one initial point but no end point.
8. The \_\_\_\_\_ of a circle is a point where all points on a circle lie at equal distance.
9. \_\_\_\_\_ is a line segment which joins centre to any point on the circle
10. \_\_\_\_\_ is a line segment passing through the centre of the circle with its end points lying on the circle.
11. \_\_\_\_\_ is a line segment with its end point lying on the circle.
12. Diameter = \_\_\_\_\_ X Radius.
13. Radius = Diameter + \_\_\_\_\_
14.  $D = 20$  cm, then  $r =$  \_\_\_\_\_ cm.
15. If,  $r = 6$  cm, then  $D =$  \_\_\_\_\_ cm.

## Fill in the blanks.

1) a) A point is the smallest shape in geometry

b) It has \_\_\_\_\_ length and \_\_\_\_\_ width.



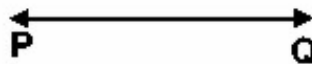
a. Lines KL and MN are called \_\_\_\_\_ lines.

b. The distance between them always remains \_\_\_\_\_.

c. Lines AB and CD are called \_\_\_\_\_ lines.

d. O is the point of \_\_\_\_\_ of these lines.

2)

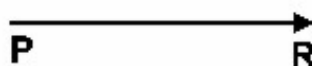


a. This is a \_\_\_\_\_

b. It has \_\_\_\_\_ end points.

c. Arrow heads on both the sides show that its length is \_\_\_\_\_

3)

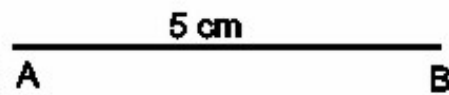


a. This is a \_\_\_\_\_

b. It has \_\_\_\_\_ end point

c. It extends endlessly in \_\_\_\_\_ direction only.

4)



a. This is a \_\_\_\_\_

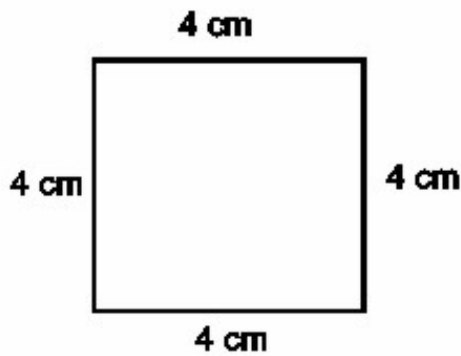
b. It has \_\_\_\_\_ end points

c. It has \_\_\_\_\_ length

d. It cannot be extended on either side.

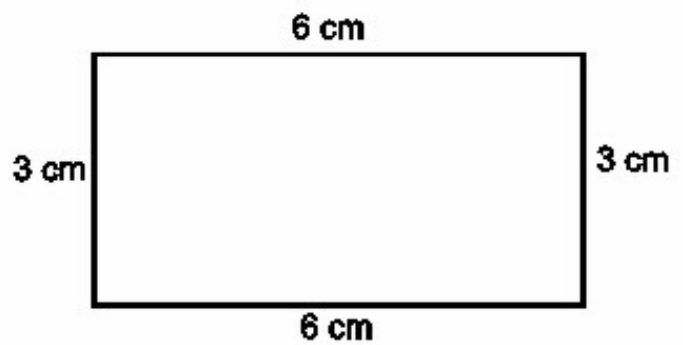
## 4. Find the perimeter of the following figures:

i)



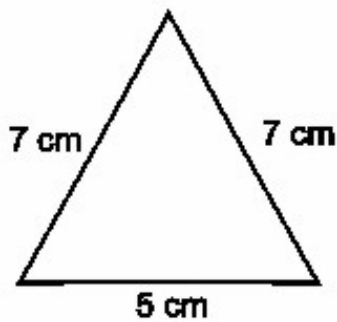
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ii)



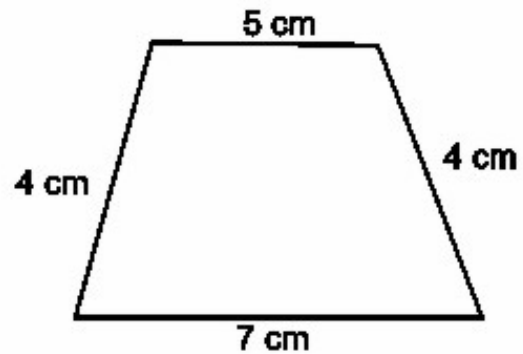
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iii)



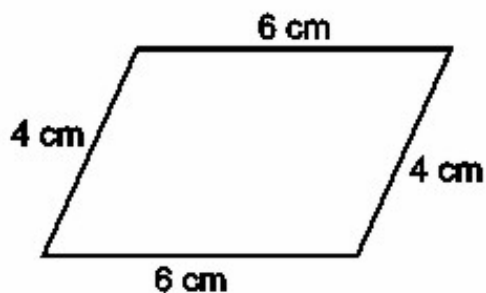
= .....

iv)



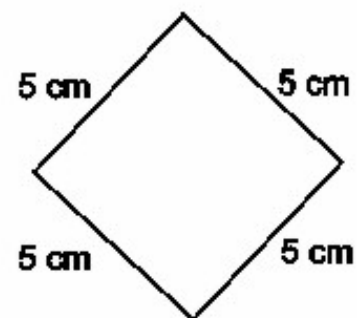
= .....

v)



= .....

vi)



= .....

**Polygons**

Number of Side

Name of Polygon

3

\_\_\_\_\_

4

\_\_\_\_\_

5

\_\_\_\_\_

6

\_\_\_\_\_

7

\_\_\_\_\_

8

\_\_\_\_\_

**Fill ups**

- i) A polygon with 4 straight side is called \_\_\_\_\_.
- ii) The opposite sides of \_\_\_\_\_ are equal.
- iii) All sides of \_\_\_\_\_ are equal.
- iv) The total length of the boundary of a closed geometric shapes is called \_\_\_\_\_

Note : Peri - around          meter = measurement

- v) Perimeter of square = \_\_\_\_\_ X \_\_\_\_\_
- vi) Perimeter of rectangle = \_\_\_\_\_
- vii) The length of the boundary of a circle is called \_\_\_\_\_.

## 1. Match

a)  5 cm

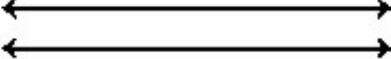
Line

b) 

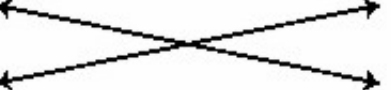
Line segment

c) 

Ray

d) 

Intersecting Lines

e) 

Parallel Lines

## 3. Tick (✓) the correct answer

i) The radius is \_\_\_\_\_ of diameter.

a) Double

b) half

c) 3 times

ii) An angle measuring  $90^\circ$  is called \_\_\_\_\_ angle

a) Acute

b) Right

c) straight Reflex

## 3. Match

a) Perimeter of square

 $1 \times b$ 

b) Area of square

 $2 \times (L + b)$ 

c) Perimeter of rectangle

side  $\times$  side

d) Area of rectangle

 $4 \times$  side

## 3. Tick the correct Answer

I) Circles have \_\_\_\_\_ diameters

1

2

Infinite

0

II)  $8\text{ m } 16\text{ cm} =$  \_\_\_\_\_  $\text{cm}$ 

816 cm

8016 cm

168 cm

80016 cm

iii) Acube has \_\_\_\_\_ faces

8

12

6

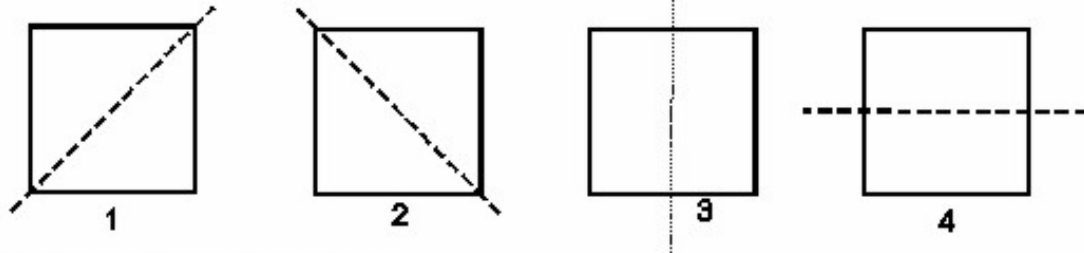
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## Ch. 14 Symmetry

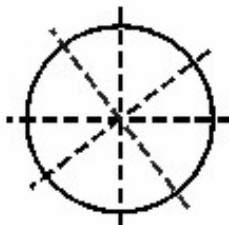
When we fold the figure along the dotted line, it is said to be symmetrical and the dotted line is known as the axis of symmetry.

Many shapes in nature are symmetric shapes.

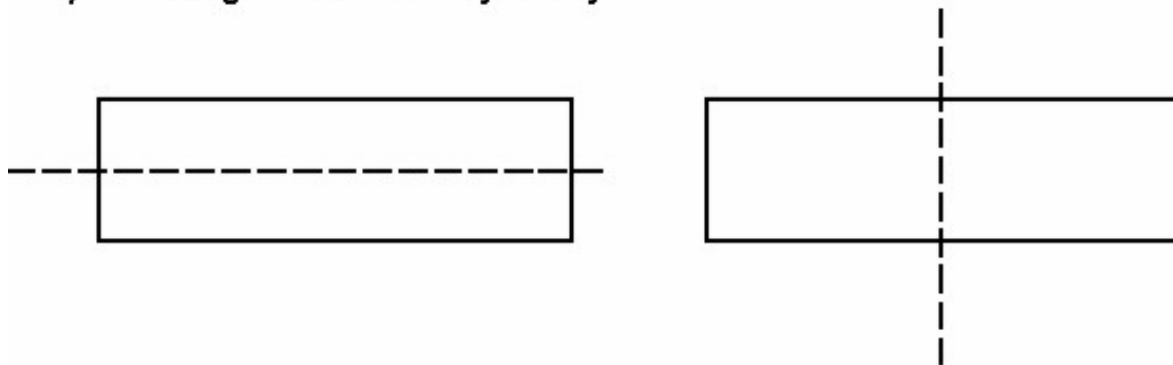
- 1) The figures with an axis of symmetry are called \_\_\_\_\_ figures.
- 2) The figures without an axis of symmetry are called \_\_\_\_\_ figures.
- 3) A square has 4 lines of symmetry.



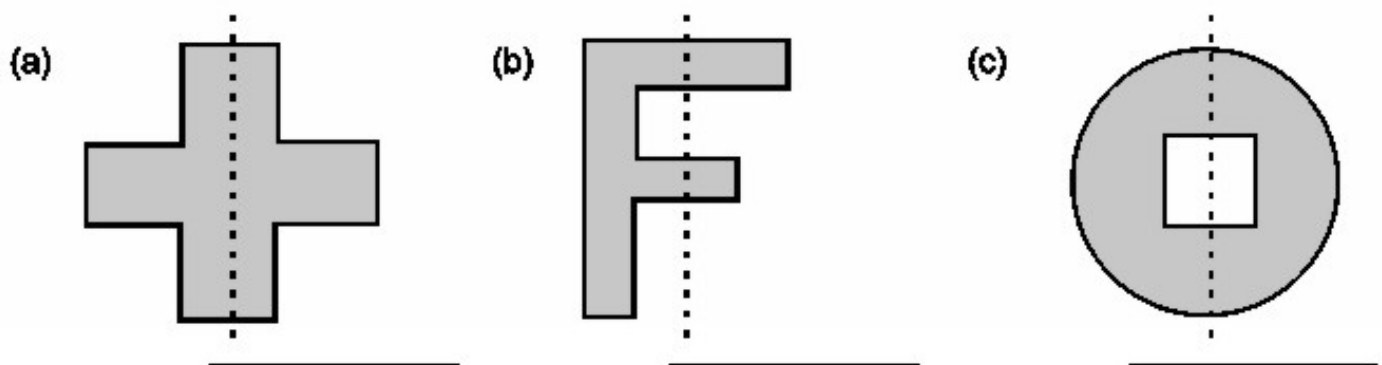
- 4) A circle has many lines of symmetry.



- 5) A rectangle has 2 lines of symmetry.



1. Check whether the following figures are symmetrical about the dotted line.



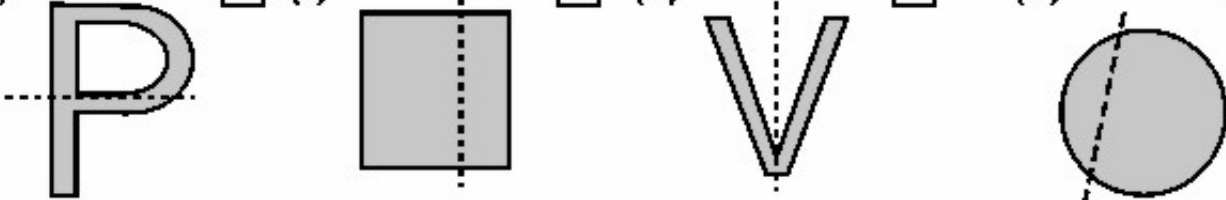


Tick (✓) the correct answer :

(a) How many lines of symmetry does a circle have ?

- (i) 0  (ii) 1  (iii) 4  (iv) Infinite

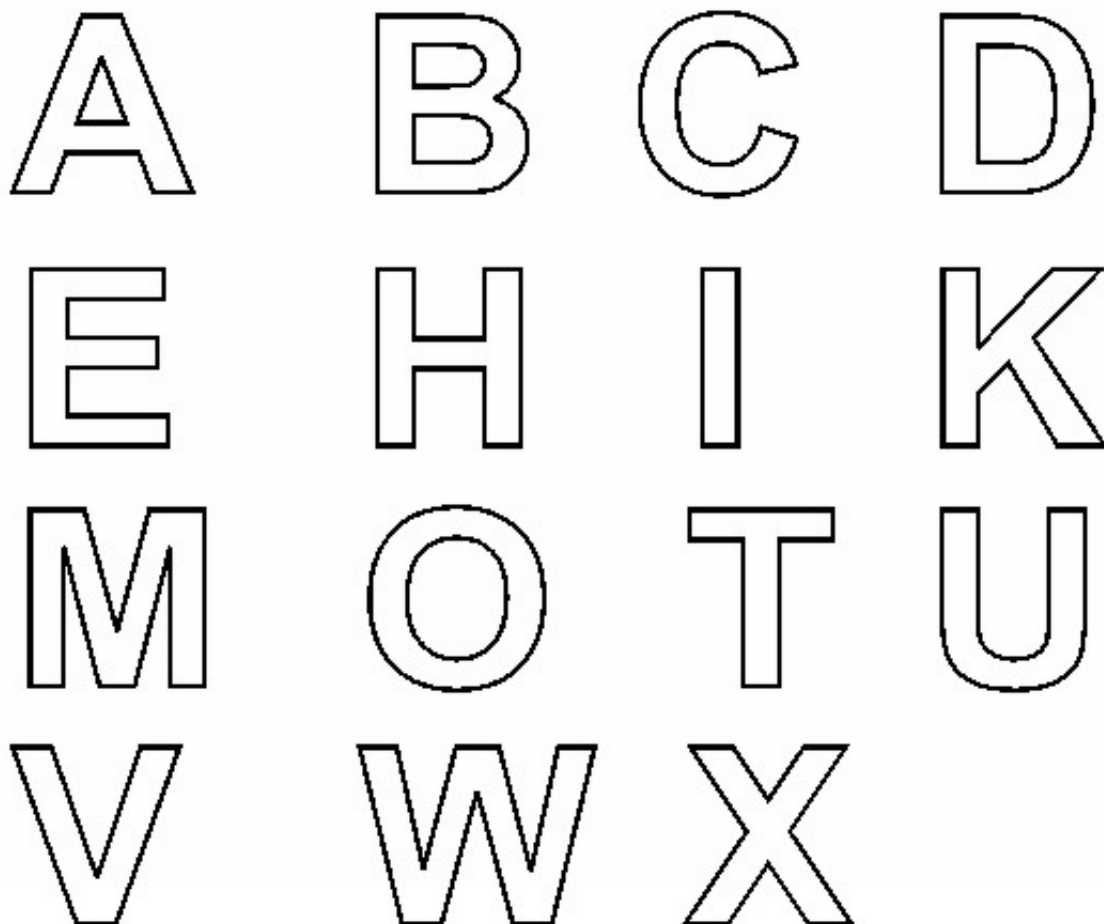
(b) Which of the following figures is symmetrical about the dotted lines ?

- (i)  (ii)  (iii)  (iv)
- 

(c) Draw the lines (s) of symmetry in each of the following :

- (a)  (b)  (c) 

Draw a line of symmetry in \_\_\_\_\_ symmetrical English alphabet

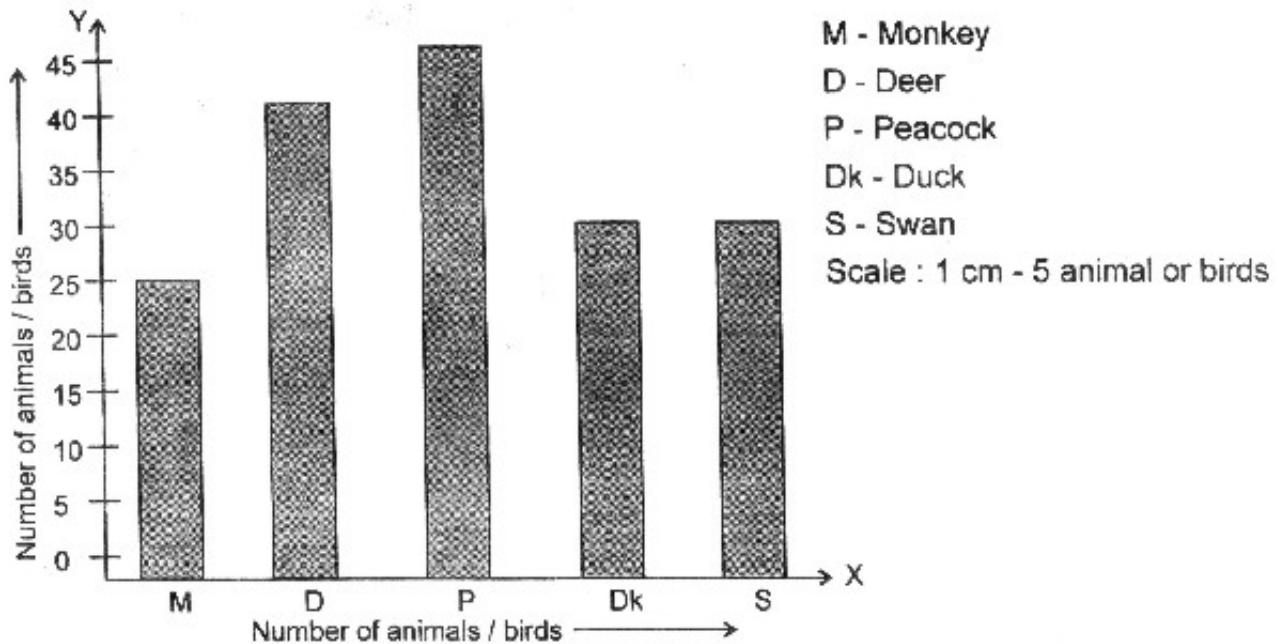


## Data Handling

### 1. Fill in the blanks

- i) \_\_\_\_\_ is collection of numbers giving specific information.
- ii) \_\_\_\_\_ gives information of data in form of pictures of objects.
- iii) \_\_\_\_\_ uses horizontal or vertical bars of equal width to show number of item.
- iv) Thickness of bar in bar graph should be \_\_\_\_\_
- v) Bar graph is drawn by using \_\_\_\_\_ or \_\_\_\_\_ bars.

**Study the bar graph carefully and answer the following questions :**



1. Which information does the bar graph give ?

Ans. \_\_\_\_\_

2. What does the line segment OX represent ?

Ans. \_\_\_\_\_








3. What does the line segment OY represent ?

Ans. \_\_\_\_\_

4. Which animal/bird was found maximum in number ?

Ans. \_\_\_\_\_

3. The pictograph given below shows number of persons who travelled from station A to station B by Metro on each day of a certain week.

Day	Number of Persons travelled
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

One  represents 10 persons

Form the pictograph, answer the following questions :

- i) What is the total number of persons who made the journey during the week between the two stations?

.....

- ii) On which day maximum people travelled between the two stations?

.....

- iii) Least number of people travelled on which day?

.....

- iv) What were Thursday's earnings if each ticket cost Rs. 12?






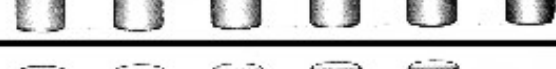

.....

Correction : \_\_\_\_\_

## Ch. 14 Pictorial Representation

### Reading a Pictograph:

1. Look at the pictograph and answer the questions given below.

Day	Petrol Sold
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

One  represents 100l of Petrol

i) On which day minimum petrol was sold by the petrol pump ?

.....

ii) What was the total sale of petrol in the whole week?

.....

iii) How many litres more of petrol was sold on Wednesday than on Sunday?

.....

iv) How many litres of petrol was sold less on Thursday than on Wednesday?

.....