



INTRODUCTION TO GRAPHS

1. Write the x - and y -coordinates of the following sets of numbers:

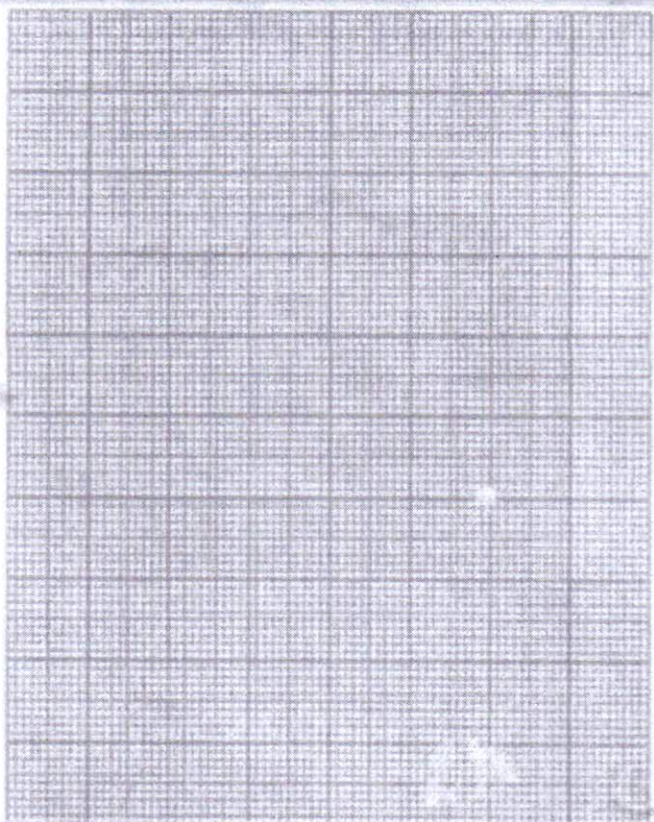
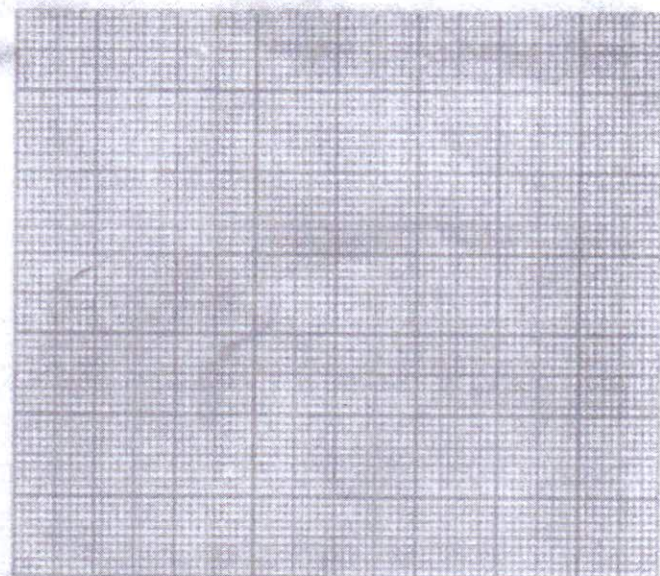
- (i) A(-3, 2) (ii) B(2, -1)
 (iii) C(0, -7)

3. Make a graph for the perimeters of a squares with lengths of sides (take 5 readings).

Side of a square	2 cm	3 cm	4 cm	5 cm	6 cm
Perimeter	8 cm	12 cm	16 cm	20 cm	24 cm

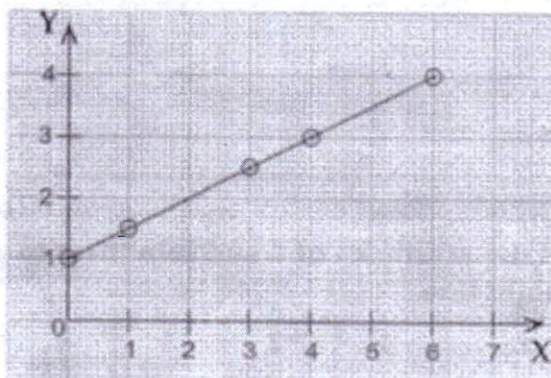
2. Plot a graph for the equation: $y = 5x$ for the following values of x and y :

x	3	2	1	0	4
y	15	10	5	0	20

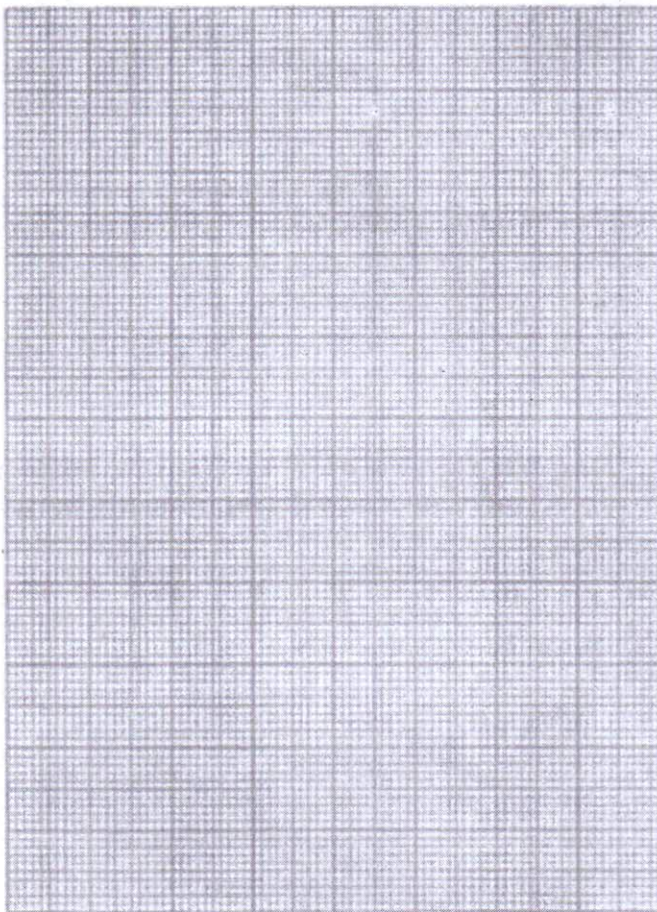


4. Complete the table of values from the following graph and write down the relationship between x and y :

x	0	1	2	3	4	5	6
y	1						

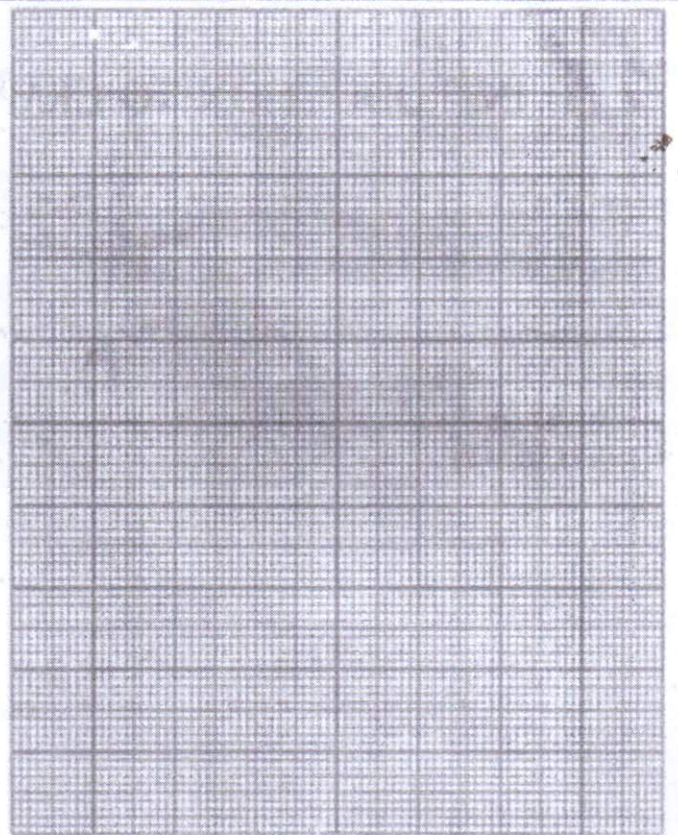


5. Volume (v) and Temperature (t) of a gas are represented by the relation $v = 2.5t$. Taking different points draw the graph of this relation on the given graph paper.

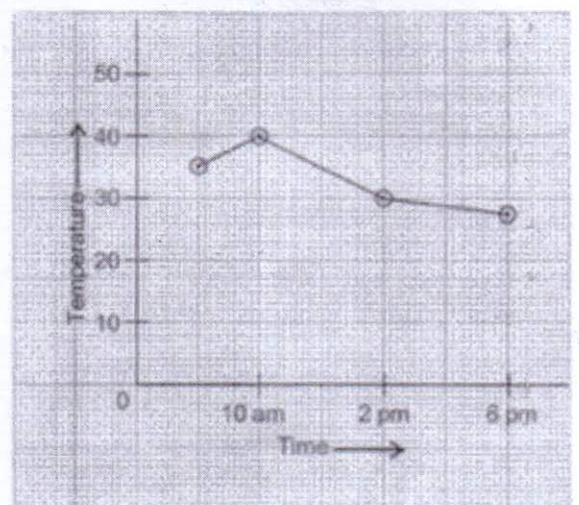


6. Plot the multiples of 4 and join them to get a straight line.

x	1	2	3	4
y	4	8	12	16



7. The graph shows the temperature of a city at different times of a day. Read the graph and answer the following questions.
- What does the graph represent?
 - When was the temperature highest?
 - When was the temperature least?



INTRODUCTION TO GRAPH

Points to Remember

1. In order to locate the position of a given point in a plane, we require two perpendicular lines (coordinate axes). Horizontal line is called x -axis and vertical line is called y -axis and such a plane is called cartesian plane.
2. The coordinate axes divide the plane into four parts, known as quadrants.
3. Coordinate axes intersect at a point is called origin and its coordinate is $(0, 0)$.
4. In ordered pair (a, b) , a represents x -coordinate or abscissa and b stands for y -coordinate or ordinate.
5. If abscissa is zero, point lies on y -axis and if ordinate is zero, point lies on x -axis.
6. The abscissa of a point is perpendicular distance from y -axis and ordinate is perpendicular distance from x -axis.

MCQs

Choose the correct answer from the given four options in the following questions 1-18.

1. Which of the following is true?

- (A) The coordinates of the origin are $(3, 3)$ or $(5, 5)$.
 (B) A point (x, y) , with $x = 7, y = 0$ lies on the x -axis.
 (C) A point (x, y) with $x = 7, y = 0$ lies on the y -axis.
 (D) A point (x, y) with $x = 2, y = 2$ lies on the x -axis. (1)

2. Which of the following points lies on the x -axis?

- (A) $(2, 0)$ (B) $(1, 1)$
 (C) $(2, 2)$ (D) $(0, 3)$. (1)

3. Look at the graph in Fig. 1. The letter that indicates the location of the point $(5, 4)$ is

- (A) B
 (B) C
 (C) D
 (D) E.

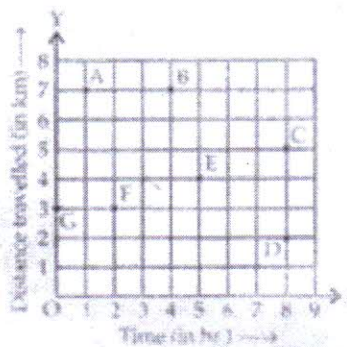


Fig. 1 (1)

4. The point $(1, 7)$ (see Fig. 1) is located by the letter

- (A) A (B) B
 (C) C (D) D. (1)

5. The coordinates of O (see Fig. 1) are

- (A) $(8, 2)$ (B) $(0, 0)$
 (C) $(2, 3)$ (D) $(5, 4)$. (1)

6. The coordinates of C (see Fig. 1) are

- (A) $(0, 0)$ (B) $(8, 8)$
 (C) $(8, 5)$ (D) $(4, 7)$. (1)

7. Distance travelled in first 1 hour (see Fig. 2) is

- (A) 16 km (B) 8 km
 (C) 32 km (D) 20 km. (1)