**Example 12 :**
- A double bar graph is useful for the _____ of two sets of data.
- Data represented in a circular form is called a _____ chart.
- The graph of a linear equation is always a _____ line.
- The cartesian system used two axes which are _____ to each other.

**3.** A circle of maximum possible size is cut from a square sheet of board. Subsequently, a square of maximum possible size is cut from the resultant circle. What will be the area of the final square?

(a) $\frac{3}{4}$ of original square.

(b) $\frac{1}{2}$ of original square.

(c) $\frac{1}{4}$ of original square.

(d) $\frac{2}{3}$ of original square.

**4.** What is the area of the largest triangle that can be fitted into a rectangle of length $l$ units and width $w$ units?

(a) $lw/2$

(b) $lw/3$

(c) $lw/6$

(d) $lw/4$

17. Avinash bought an electric iron for Rs 900 and sold it at a gain of 10%. He sold another electric iron at 5% loss which was bought Rs 1200. On the transaction he has a

(a) Profit of Rs 75        (b) Loss of Rs 75

(c) Profit of Rs 30        (d) Loss of Rs 30

18. A TV set was bought for Rs 26,250 including 5% VAT. The original price of the TV set is

(a) Rs 27,562.50   (b) Rs 25,000   (c) Rs 24,937.50 (d) Rs 26,245

19. 40% of [100 – 20% of 300] is equal to

(a) 20            (b) 16            (c) 140            (d) 64

**20.** The x-coordinate of any point lying on the y-axis will be _____.

**21.** The y-coordinate of the point (2, 4) is _____.

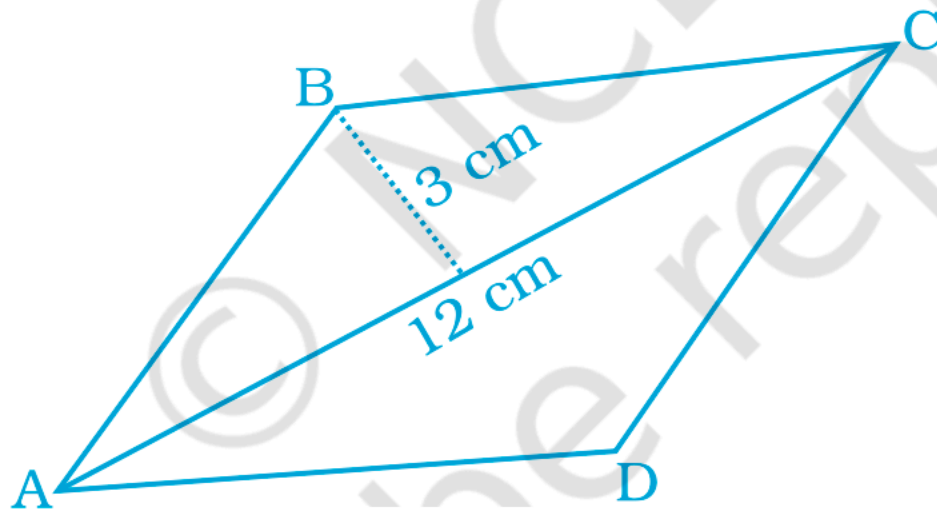**22.** In the point (4, 7), 4 denotes the _____.

**14.** The volume of a cylinder whose radius $r$ is equal to its height is

(a) $\dfrac{1}{4}\pi r^3$

(b) $\dfrac{\pi r^3}{32}$

(c) $\pi r^3$

(d) $\dfrac{r^3}{8}$

**15.** The volume of a cube whose edge is $3x$ is

(a) $27x^3$

(b) $9x^3$

(c) $6x^3$

(d) $3x^3$

**16.** The figure ABCD is a quadrilateral in which AB = CD and BC = AD. Its area is
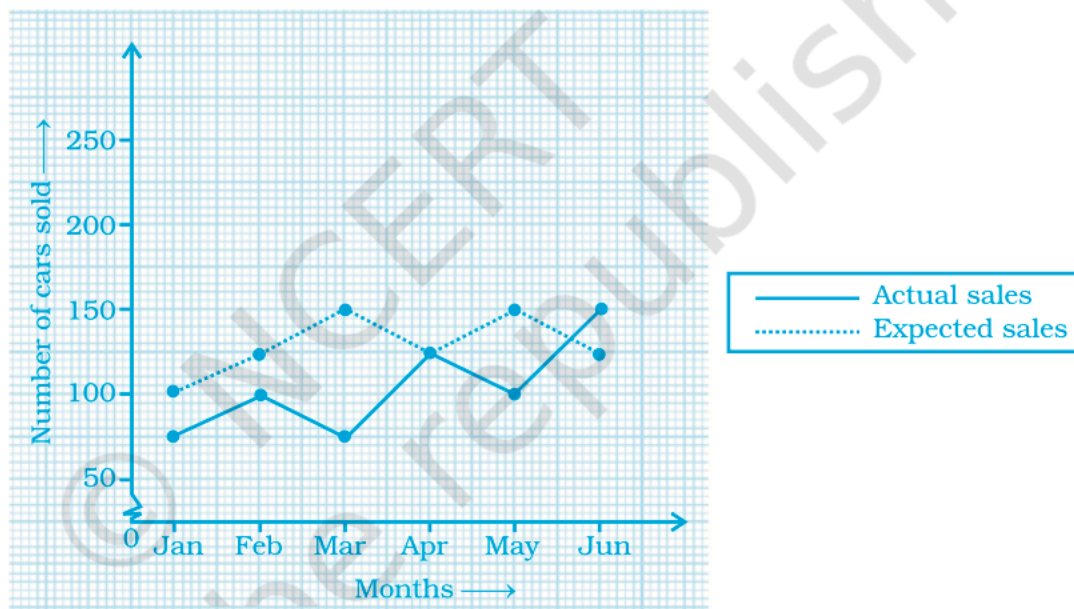


(a) $72 \text{ cm}^2$

(b) $36 \text{ cm}^2$

(c) $24 \text{ cm}^2$

(d) $18 \text{ cm}^2$

**66.** In a factory, women are 35% of all the workers, the rest of the workers being men. The number of men exceeds that of women by 252. Find the total number of workers in the factory.

**87.** A cube of side 5 cm is cut into as many 1 cm cubes as possible. What is the ratio of the surface area of the original cube to that of the sum of the surface areas of the smaller cubes?

**52.** The gra ph given below gives the actual and expected sales of cars of a company for 6 months. Study the graph and answer the questions that follow.



(a) In which month was the actual sales same as the expected sales?

(b) For which month(s) was (were) the difference in actual and expected sales the maximum?

(c) For which month(s) was (were) the difference in actual and expected sales the least?

(d) What was the total sales of cars in the months–Jan, Feb. and March?

(e) What is the average sales of cars in the last three months?

(f) Find the ratio of sales in the first three months to the last three months.

**105.** The following items are purchased from showroom:

T-Shirt worth Rs 1200.

Jeans worth Rs 1000.

2 Skirts worth Rs 1350 each.

What will these items cost to Shikha if the sales tax is 7%?

**114.** A real estate agent receives Rs 50,000 as commission, which is 4% of the selling price. At what price does the agent sell the property?

**118.** A rectangular examination hall having seats for 500 candidates has to be built so as to allow 4 cubic metres of air and 0.5 square metres of floor area per candidate. If the length of hall be 25 m, find the height and breadth of the hall.