

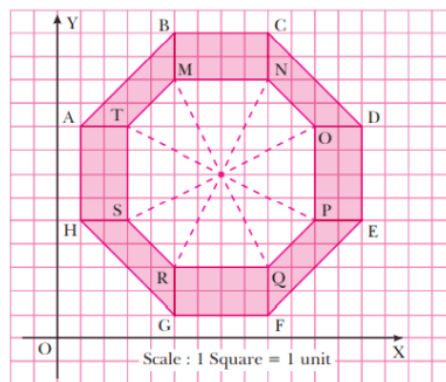
# Case Study Questions for Class 10 Maths

## Chapter – 7 Coordinate Geometry

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### Question 1:

The top of a table is shown in the figure given below:



(i) The coordinates of the points H and G are respectively

- (a) (1, 5), (5, 1)
- (b) (0, 5), (5, 0)
- (c) (1, 5), (5, 0)
- (d) (5, 1), (1, 5)

(ii) The distance between the points A and B is

- (a) 4 units
- (b)  $4\sqrt{2}$  units
- (c) 16 units
- (d) 32 units

(iii) The coordinates of the mid point of line segment joining points M and Q are

- (a) (9, 3)
- (b) (5, 11)
- (c) (14, 14)
- (d) (7, 7)

**(iv) Which among the following have same ordinate?**

- (a) H and A
- (b) T and O
- (c) R and M
- (d) N and R

**(v) If G is taken as the origin, and x, y axis put along GF and GB, then the point denoted by coordinate (4, 2) is**

- (a) H
- (b) F
- (c) Q
- (d) R

**Answer :**

(i) Coordinate of  $H = (1, 5)$  and  $G = (5, 1)$

$\therefore$  Option (a) is correct.

(ii) Distance between  $A(1, 9)$  and  $B(5, 13)$  is

$$\sqrt{(5-1)^2 + (13-9)^2} = \sqrt{4^2 + 4^2} = \sqrt{16+16} = \sqrt{32} = 4\sqrt{2} \text{ unit}$$

$\therefore$  Option (b) is correct.

(iii) Mid point of line segment joining  $M(5, 11)$  and  $Q(9, 3)$  is given by

$$\left( \frac{5+9}{2}, \frac{11+3}{2} \right) = \left( \frac{14}{2}, \frac{14}{2} \right) = (7, 7)$$

$\therefore$  Option (d) is correct.

(iv) Points  $T$  and  $O$  have same ordinate as 9.

$\therefore$  Option (b) is correct.

(v) If  $G$  is  $(0, 0)$ , then  $Q = (4, 2)$ .

$\therefore$  Option (c) is correct.