

1. Find the ratio in which the y-axis divides the line segment joining the points  $(5, -6)$  and  $(-1, -4)$ . Also find the point of intersection  
(cbse-2025)
2. The mid-point of the line segment joining the point  $P(-4, 5)$  and  $Q(4, 6)$  lies on  
(cbse-2025)
3. If the mid-point of the line segment joining the point  $A(3, 4)$  and  $B(k, 6)$  is  $P(x, y)$  and  $x + y - 10 = 0$ , then find the value of  $k$   
(cbse-2025)
4. Find the coordinate of the point  $C$  which lies on the line  $AB$  produced such that  $AC = 2BC$ , where coordinates of point  $A$  and  $B$  are  $(-1, 7)$  and  $(4, -3)$  respectively.  
(cbse-2025)
5.  $P(x, y)$ ,  $Q(-2, -3)$  and  $R(2, 3)$  are the vertices of a right triangle  $PQR$  right angle at  $P$ . Find the relationship b/w  $x$  and  $y$ . Hence, find all possible value of  $x$  for which  $y = 2$   
(cbse-2025)
6. The coordinate of the end points of the line segment  $AB$  are  $A(-2, -2)$  and  $B(2, -4)$ .  $P$  is the point on  $AB$  such that  $BP = \frac{4}{7}AB$ . Find the coordinates of point  $P$ .  
(cbse-2025)
7. Find a relation b/w  $x$  and  $y$  such that  $P(x, y)$  is equidistant from the point  $A(3, 5)$  and  $B(7, 1)$ . Hence, write the coordinate of the points on  $x$ -axis and  $y$ -axis which are equidistant from point  $A$  and  $B$   
(cbse-2025)
8. If the point  $A(6, 1)$ ,  $B(p, 2)$ ,  $C(9, 4)$  and  $D(7, 2)$  are the vertices of a parallelogram  $ABCD$ . Then find the value of  $p$  and  $q$ . Hence, check  $ABCD$  is rectangle or not  
(cbse-2025)
9. Prove that abscissa of a point  $P$  which is equidistant from points with coordinate  $A(7, 1)$  and  $B(3, 5)$  is 2 more than its ordinate  
(cbse-2025)

10. find the ratio in which the point  $(\frac{8}{5}, y)$  divides the line segment joining the point  $(1, 2)$  and  $(2, 3)$  Also, find value of  $y$  (cbse-2024)

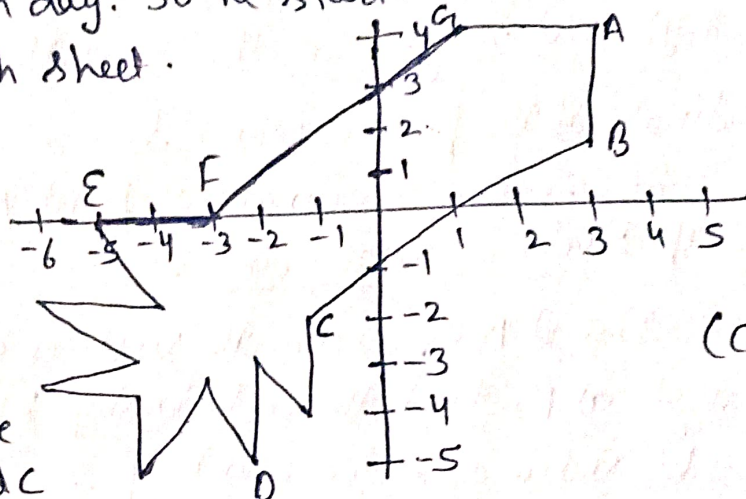
11.  $A(3, 0)$ ,  $B(6, 4)$  and  $C(-1, 3)$  are the vertices of a triangle ABC. find length of its median BE (cbse-2024)

12. Ryan, from a very young age, was fascinated by the twinkling of stars and the vastness of space. He always dreamt of becoming an astronaut one day. So he started to sketch his own rocket design on graph sheet.

(i) find the Mid point of the segment joining F and G.

(ii) what is the distance b/w the point A and C

(iii) what are the Coordinate of the point D?



(cbse-2024)

13. find the ratio in which the Point  $P(-4, 6)$  divides the line segment joining the point  $A(-6, 10)$  and  $B(3, -8)$  (cbse-2024)

14. If  $Q(0, 1)$  is equidistant from  $P(5, -3)$  and  $R(x, 6)$  find the value of  $x$  (cbse-2023)

15. find the ratio in which y-axis divides the line segment joining the Point  $(5, -6)$  and  $(-1, -4)$  (cbse-2023)