

⑨

$$P(7, -6) \quad \begin{array}{c} R(x, y) \\ \hline \begin{array}{cc} 1. & 2. \\ \hline \end{array} \\ Q(3, 4) \end{array}$$

let required point be  $R(x, y)$

$$x = \frac{3+14}{3} \qquad y = \frac{4-12}{3}$$

$$= \frac{17}{3} \qquad = \frac{-8}{3}$$

$$\therefore R\left(\frac{17}{3}, -\frac{8}{3}\right)$$

$R$  lies in IV quadrant (D)

⑩ any point on perpendicular bisector of  $AB$  is equidistant from  $A$  and  $B$

One of the points is midpoint of  $AB$ . let it be  $P(x, y)$

$$x = \frac{-2+2}{2}, \quad y = \frac{-5+5}{2}$$

$$= 0 \qquad = 0$$

$$\therefore P(0, 0) \quad (A)$$

⑪ diagonals of a  $\square$  bisect each other  
 $\therefore$  Midpoints of  $AC$  and  $BD$  coincide

$$\frac{x+6}{2} = \frac{-2+8}{2}, \quad \frac{y+7}{2} = \frac{3+3}{2}$$

$$\Rightarrow x = 0$$

$$\Rightarrow y = -1$$

$$\therefore D(0, -1) \quad (B)$$