Co-Ordinate Geometry Ex 14.1 Q1

Answer :

According to the Rectangular Cartesian Co-ordinate system of representing a point *(x, y)*,

If $x > 0, y > 0$ then the point lies in the 1st quadrant

If $x < 0, y > 0$ then the point lies in the 2nd quadrant

If $x < 0, y < 0$ then the point lies in the 3rd quadrant

If $x > 0, y < 0$ then the point lies in the 4th quadrant

But in case

If $x = 0, y \neq 0$ then the point lies on the *y*-axis

If $y = 0, x \neq 0$ then the point lies on the *x*-axis

(i) Here the point is given to be *P* (5, 0). Comparing this with the standard form of (*x*, *y*) we have

$x = 5$

$y = 0$

Here we see that $y = 0, x \neq 0$

Hence the given point lies on the $\boxed{x\text{-axis}}$

(ii) Here the point is given to be *Q (0,* -–2). Comparing this with the standard form of *(x, y)* we have

$x = 0$

$y = -2$

Here we see that $x = 0, y \neq 0$

Hence the given point lies on the $\boxed{y-\text{axis}}$

(iii) Here the point is given to be *R* (-4, 0). Comparing this with the standard form of (*x*, *y*) we have

$x = -4$

$y = 0$

Here we see that $y = 0, x \neq 0$

Hence the given point lies on the $\boxed{x-\text{axis}}$

(iv) Here the point is given to be S (0, 5). Comparing this with the standard form of (*x*, *y*) we have

$x = 0$

$y = 5$

Here we see that $x = 0, y \neq 0$

Hence the given point lies on the $\boxed{y-\text{axis}}$

********** END **********