

EE24BTECH11043 - Murra Rajesh Kumar Reddy

**Question:**

The point which divides the line segment joining the points  $P(7, -6)$  and  $Q(3, 4)$  in the ratio  $1 : 2$  internally lies in which quadrant?

**Solution:** Using section formula (0.1), the desired point is

$$\frac{1}{1+2} \left( \binom{3}{4} + \binom{-1}{7} \right) = \binom{\frac{17}{3}}{\frac{-8}{3}} \quad (0.1)$$

See Fig. 0.1

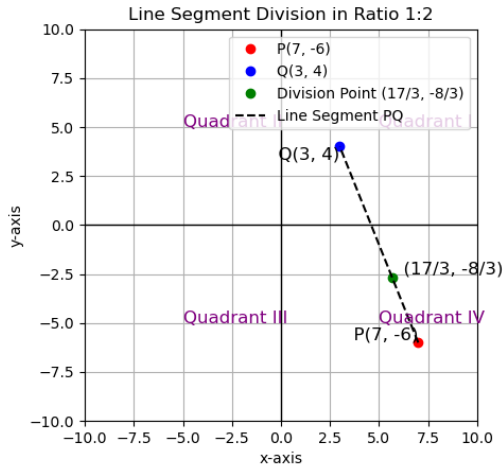


Fig. 0.1: Section Formula

The desired point lies in the 4<sup>th</sup> quadrant.