Parallel and Perpendicular Lines: Question 16

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The picture of triangle PQR is shown below.

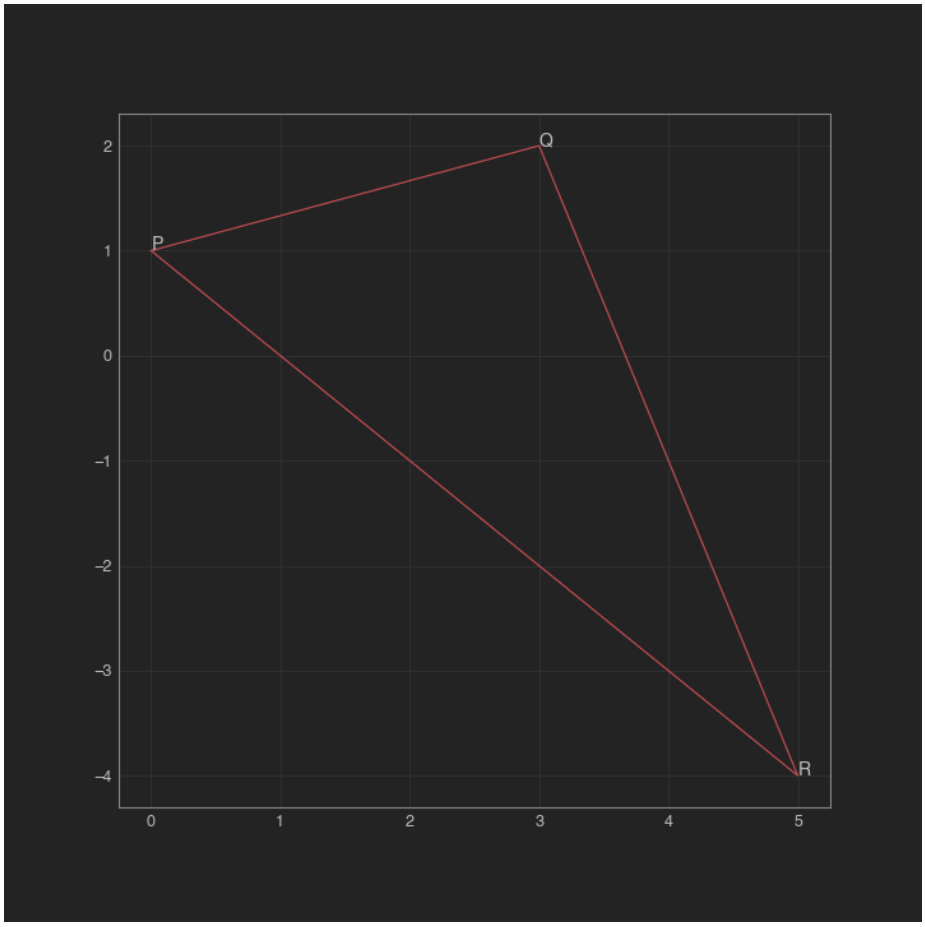

Figure 1: Triangle PQR

From the triangle above, I will calculate the slopes of PQ and QR to see

whether or not the triangle is a right triangle.

$$\text{slope}_{PQ} = \frac{2-1}{3-0} = \frac{1}{3} \tag{1}$$

$$\text{slope}_{QR} = \frac{-4-2}{5-3} = \frac{-6}{2} = -3 \tag{2}$$

$$\frac{1}{3} * -3 = -1 \tag{3}$$

Since the slopes, when multiplied together, retrieve a product of -1, the triangle PQR is a right triangle.