

# Assignment 2

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Download all python codes from

[https://github.com/AnilMondedla/Python/Assignment\\_2](https://github.com/AnilMondedla/Python/Assignment_2)

and latex-tikz codes from

[https://github.com/AnilMondedla/Python/Assignment\\_2](https://github.com/AnilMondedla/Python/Assignment_2)

## 1 PROBLEM

(2.5). Construct  $\triangle PQR$  if  $PQ = 5$ ,  $\angle Q = 105^\circ$  and  $\angle R = 40^\circ$

## 2 SOLUTION

From the given information,

$$\angle P = 35^\circ \quad (2.0.1)$$

and

$$q = r \left( \frac{\sin Q}{\sin R} \right) \quad (2.0.2)$$

$$= 7.5135 \quad (2.0.3)$$

Thus, the coordinates are

$$\mathbf{P} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \mathbf{Q} = \begin{pmatrix} 5 \\ 0 \end{pmatrix}, \mathbf{R} = q \begin{pmatrix} \cos 35^\circ \\ \sin 35^\circ \end{pmatrix} \quad (2.0.4)$$

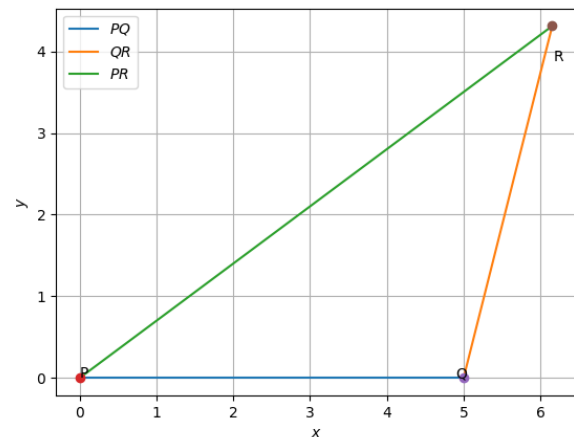


Fig. 0:  $\triangle PQR$