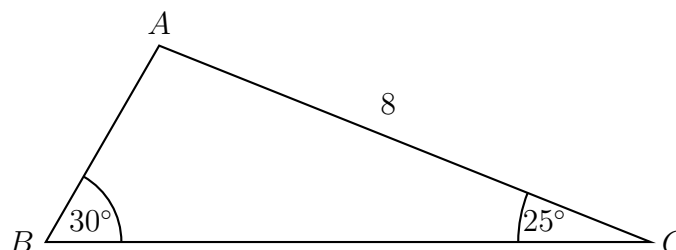


### 6.3 The Law of Sines

1. The following diagram shows triangle  $ABC$ , with  $\hat{A}BC = 60^\circ$ ,  $\hat{A}CB = 25^\circ$ , and  $AC = 8$  cm.

Find  $AB$ .

*diagram not to scale*

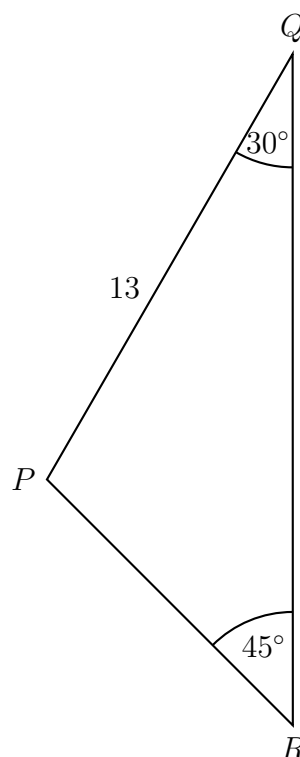


2. The following diagram shows triangle  $PQR$ .

$\hat{Q}RP = 45^\circ$ ,  $\hat{P}QR = 30^\circ$ , and  $PQ = 13$  cm.

Find  $PR$ .

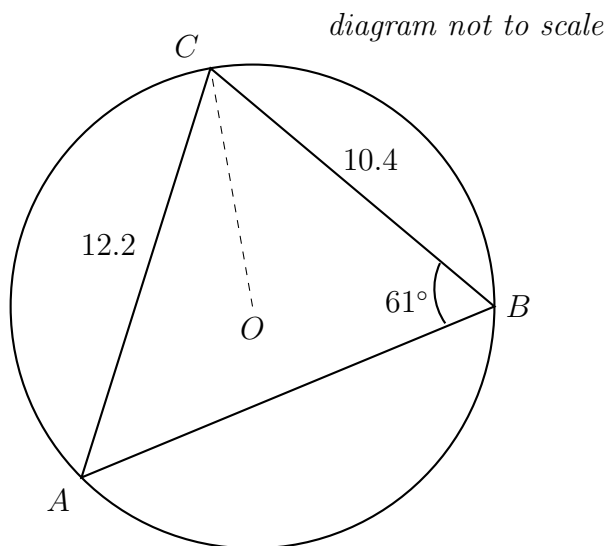
*diagram not to scale*



3. Consider a circle with centre  $O$  and radius 7 cm. Triangle  $ABC$  is drawn such that its vertices are on the circumference of the circle.

$AC = 12.2$  cm,  $BC = 10.4$  cm, and  $\hat{A}BC = 61^\circ$ .

Find  $\hat{B}AC$ .



4. The following diagram shows triangle  $ABC$ , with  $\hat{A}BC = 48^\circ$ ,  $\hat{A}CB = 37^\circ$ , and  $BC = 11.5$  cm.

Find  $AB$ .

*diagram not to scale*

