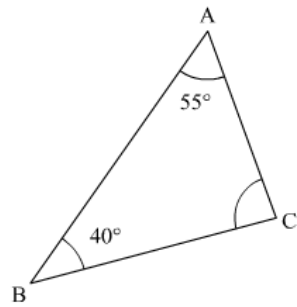




Triangles and Its Angles Ex 9.1 Q1

Answer :



$$\begin{aligned}\angle A + \angle B + \angle C &= 180^\circ \quad [\text{The sum of three angles of a triangle is } 180^\circ.] \\ \Rightarrow 55^\circ + 40^\circ + \angle C &= 180^\circ \\ \Rightarrow 95^\circ + \angle C &= 180^\circ \\ \Rightarrow \angle C &= 180^\circ - 95^\circ \\ \Rightarrow \angle C &= 85^\circ\end{aligned}$$

Triangles and Its Angles Ex 9.1 Q2

Answer :

Let the angles of the given triangle be of x° , $2x^\circ$ and $3x^\circ$. Then,

$$\therefore x + 2x + 3x = 180 \quad \text{The sum of three angles of a triangle is } 180^\circ \Rightarrow 6x = 180 \Rightarrow x = 30$$

Hence, the angles of the triangle are 30° , 60° and 90° .

Triangles and Its Angles Ex 9.1 Q3

Answer :

$$\text{Given angles are } (x - 40)^\circ, (x - 20)^\circ \text{ and } \left(\frac{1}{2}x - 10\right)^\circ.$$

$$\therefore x - 40 + x - 20 + \frac{1}{2}x - 10 = 180 \Rightarrow \frac{5}{2}x = 180 + 70 \Rightarrow 5x = 250 \Rightarrow x = 250 \div 5 \Rightarrow x = 100$$

Hence, the value of x is 100° .

***** END *****