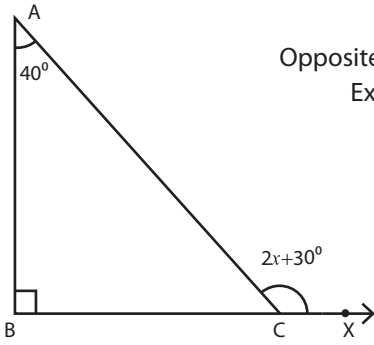


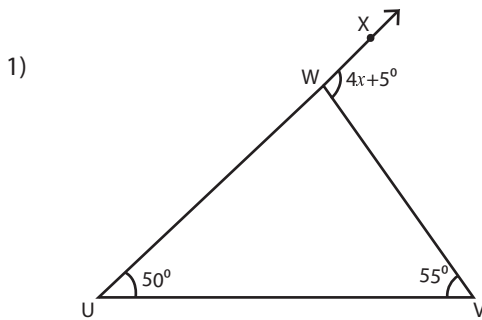
Triangle - Exterior Angle

The measure of an exterior angle of a triangle is equal to sum of the measures of opposite interior angles.

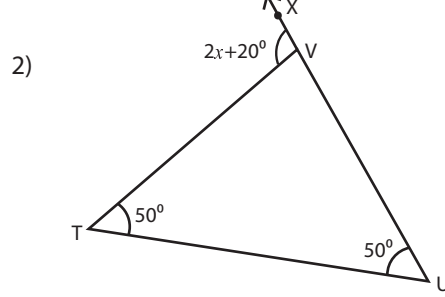


Exterior angle : $\angle ACX$
 Opposite interior angles : $\angle A$ and $\angle B$
 Exterior angle = Sum of opposite interior angles
 $\angle ACX = \angle A + \angle B = 60^\circ + 60^\circ = 120^\circ$
 $\angle ACX = 2x + 30^\circ$
 $2x + 30^\circ = 130^\circ$
 $2x = 130^\circ - 30^\circ$
 $2x = 100^\circ$
 $x = \frac{100^\circ}{2} = 50^\circ$

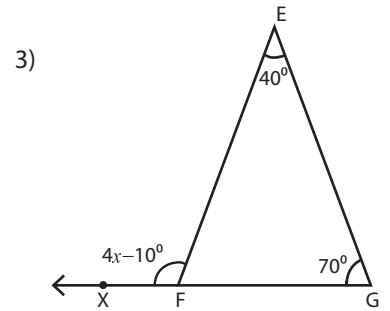
Find the unknown exterior angle and the value of x for each triangle.



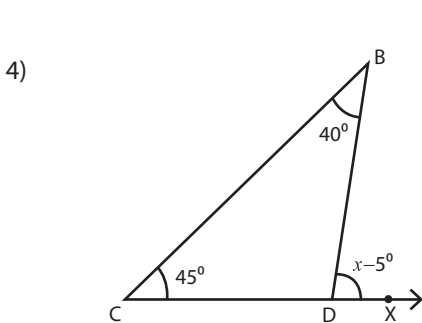
$\angle VWX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



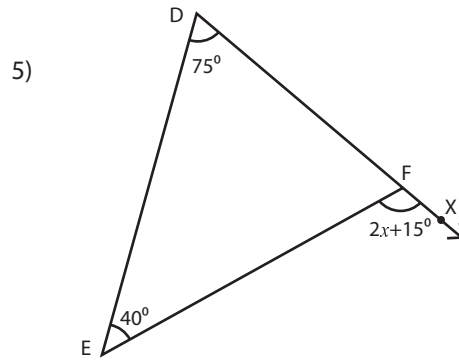
$\angle TVX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



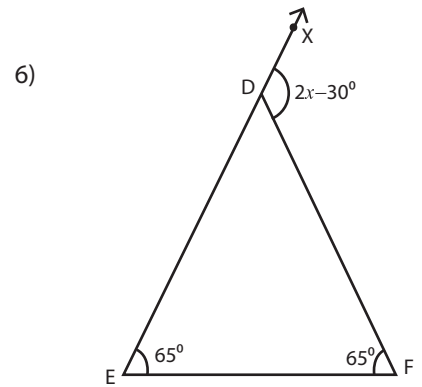
$\angle EFX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



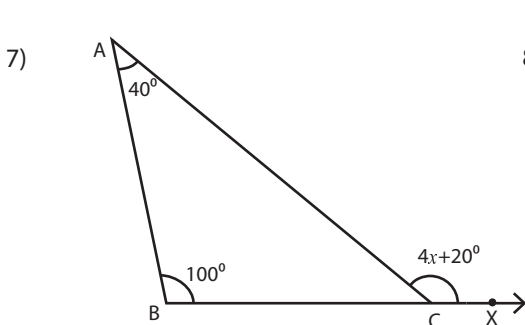
$\angle BDX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



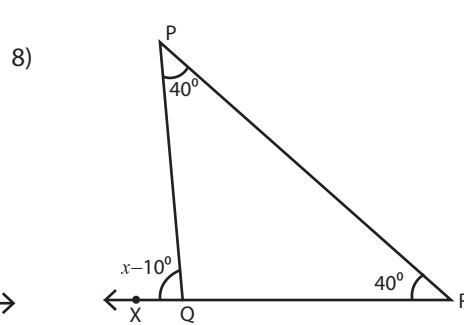
$\angle EFX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



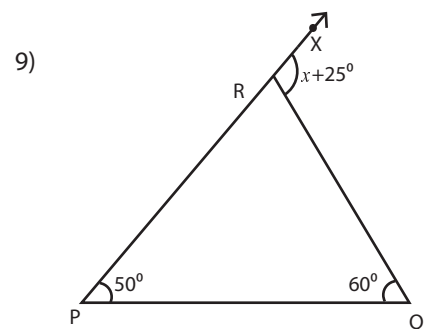
$\angle FDX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



$\angle ACX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



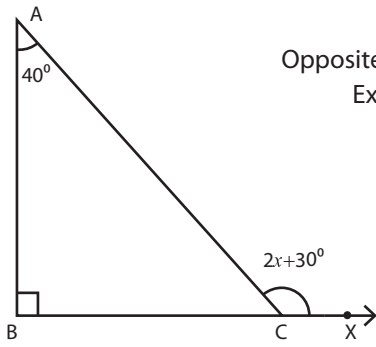
$\angle PQX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$



$\angle QRX = \underline{\hspace{2cm}}$; $x = \underline{\hspace{2cm}}$

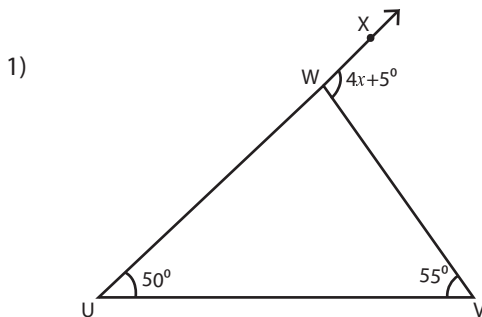
Answer key

The measure of an exterior angle of a triangle is equal to sum of the measures of opposite interior angles.

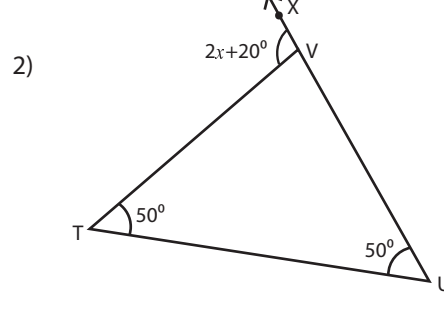


Exterior angle : $\angle ACX$
 Opposite interior angles : $\angle A$ and $\angle B$
 Exterior angle = Sum of opposite interior angles
 $\angle ACX = \angle A + \angle B = 60^\circ + 60^\circ = 120^\circ$
 $\angle ACX = 2x + 30^\circ$
 $2x + 30^\circ = 130^\circ$
 $2x = 130^\circ - 30^\circ$
 $2x = 100^\circ$
 $x = \frac{100^\circ}{2} = 50^\circ$

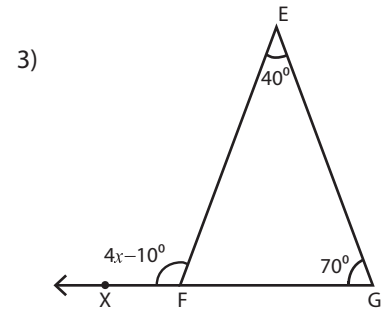
Find the unknown exterior angle and the value of x for each triangle.



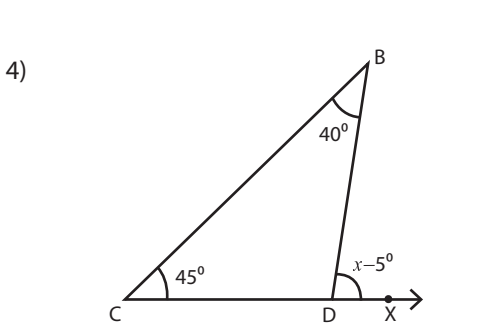
$\angle VWX = 105^\circ$; $x = 25^\circ$



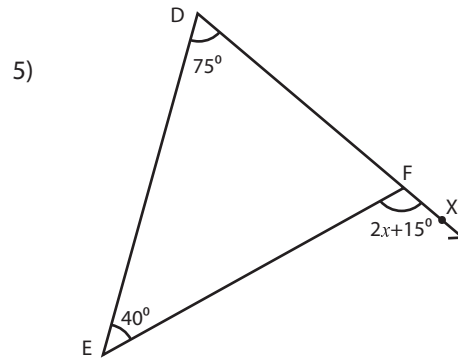
$\angle TVX = 100^\circ$; $x = 40^\circ$



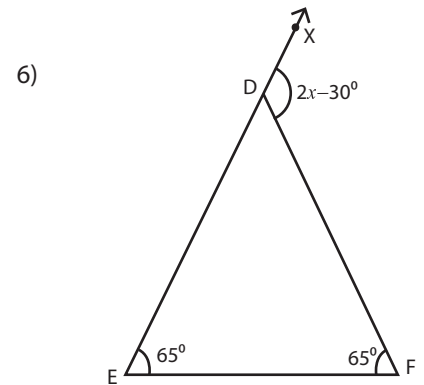
$\angle EFX = 110^\circ$; $x = 30^\circ$



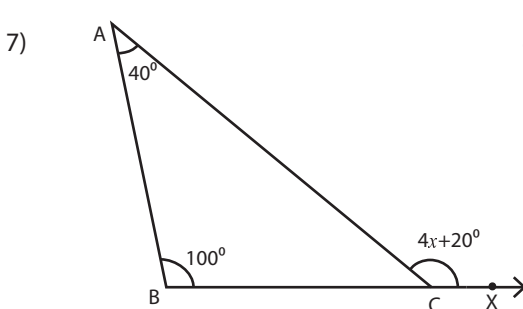
$\angle BDX = 85^\circ$; $x = 90^\circ$



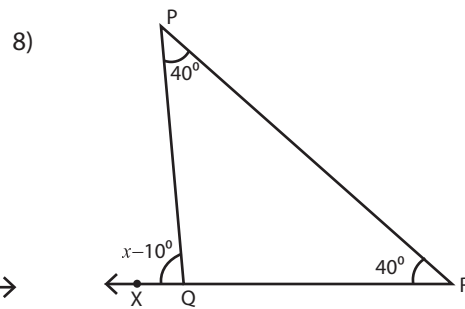
$\angle EFX = 115^\circ$; $x = 50^\circ$



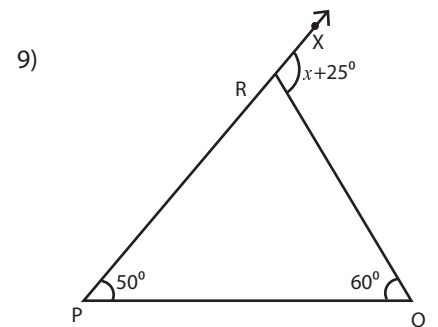
$\angle FDX = 130^\circ$; $x = 80^\circ$



$\angle ACX = 140^\circ$; $x = 30^\circ$



$\angle PQX = 80^\circ$; $x = 90^\circ$



$\angle QRX = 110^\circ$; $x = 85^\circ$