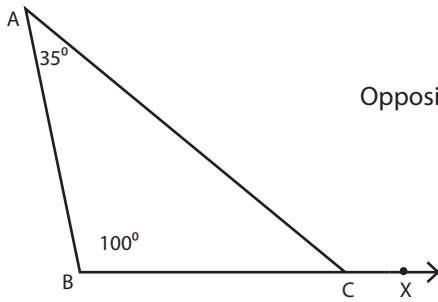


## Triangle-Exterior Angle

**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

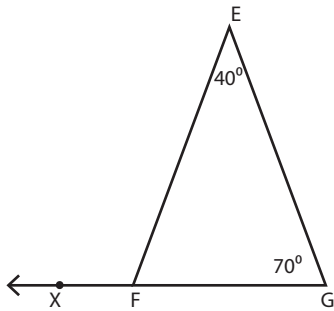
$$\angle ACX = \angle A + \angle B$$

$$\angle ACX = 100^\circ + 35^\circ$$

$$\angle ACX = \mathbf{135^\circ}$$

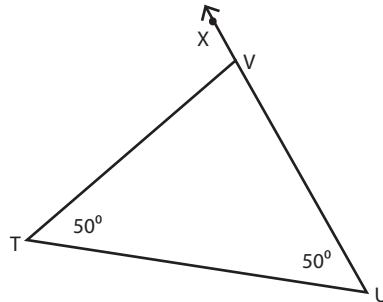
Find the unknown exterior angle for each triangle.

1)



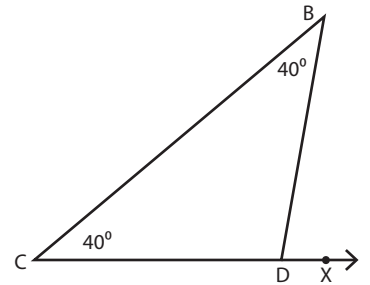
$$\angle EFX = \text{_____}$$

2)



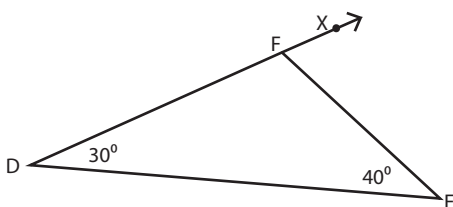
$$\angle TVX = \text{_____}$$

3)



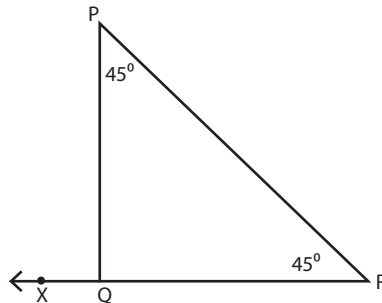
$$\angle BDx = \text{_____}$$

4)



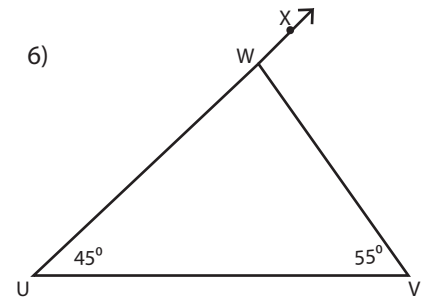
$$\angle EFX = \text{_____}$$

5)



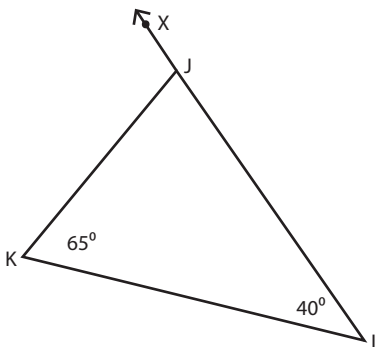
$$\angle PQX = \text{_____}$$

6)



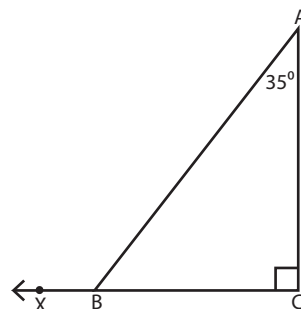
$$\angle VWX = \text{_____}$$

7)



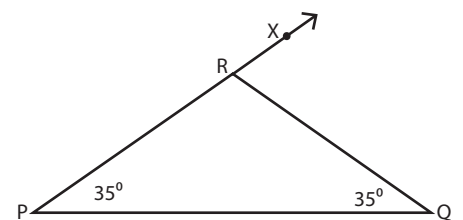
$$\angle KJX = \text{_____}$$

8)



$$\angle ABX = \text{_____}$$

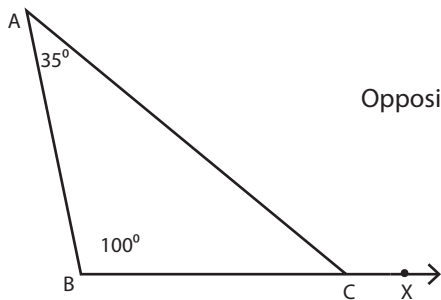
9)



$$\angle QRX = \text{_____}$$

## 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

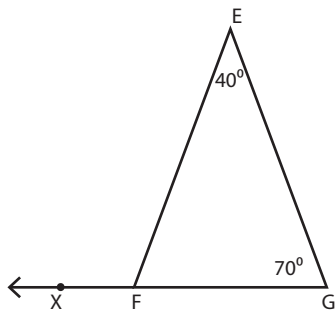
$$\angle ACX = \angle A + \angle B$$

$$\angle ACX = 100^\circ + 35^\circ$$

$$\angle ACX = \mathbf{135^\circ}$$

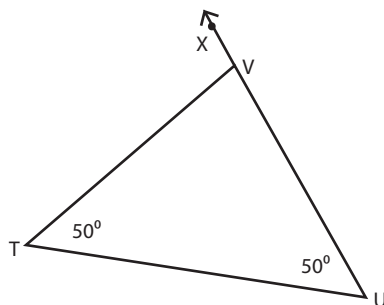
Find the unknown exterior angle for each triangle.

1)



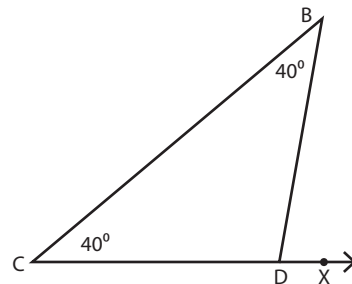
$$\angle EFX = \mathbf{110^\circ}$$

2)



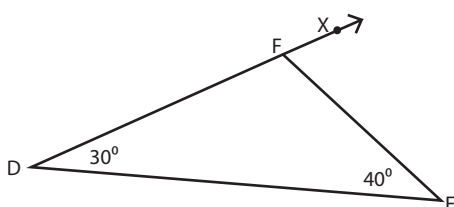
$$\angle TVX = \mathbf{100^\circ}$$

3)



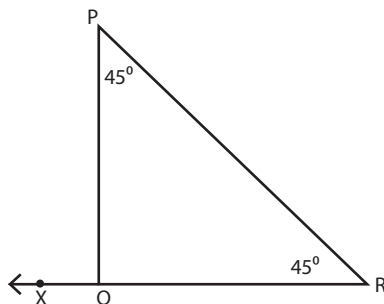
$$\angle BDX = \mathbf{80^\circ}$$

4)



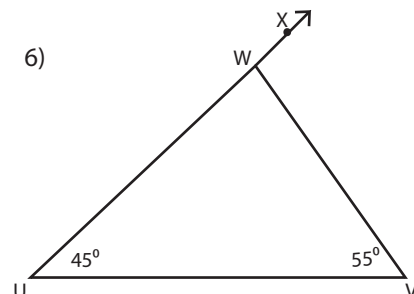
$$\angle EFX = \mathbf{70^\circ}$$

5)



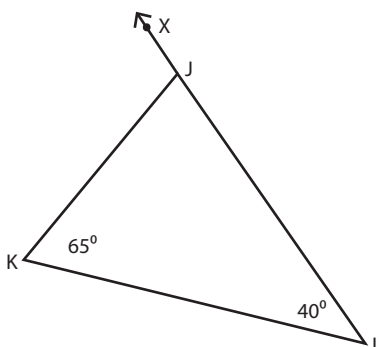
$$\angle PQX = \mathbf{90^\circ}$$

6)



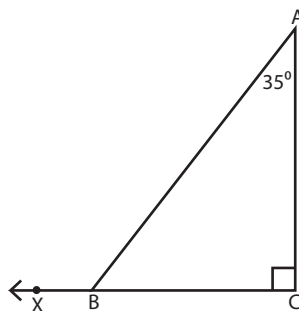
$$\angle VWX = \mathbf{100^\circ}$$

7)



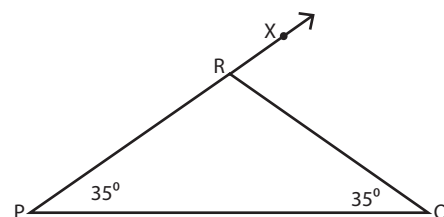
$$\angle KJX = \mathbf{105^\circ}$$

8)



$$\angle ABX = \mathbf{125^\circ}$$

9)



$$\angle QRX = \mathbf{70^\circ}$$