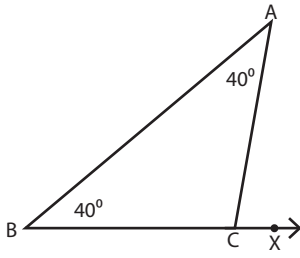


Triangle-Exterior Angle

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

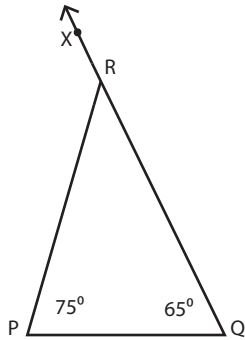
$$\angle ACX = \angle A + \angle B$$

$$\angle ACX = 40^\circ + 40^\circ$$

$$\angle ACX = 80^\circ$$

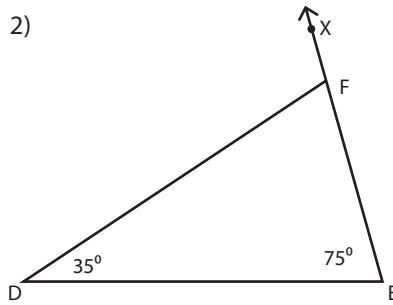
Find the unknown exterior angle for each triangle.

1)



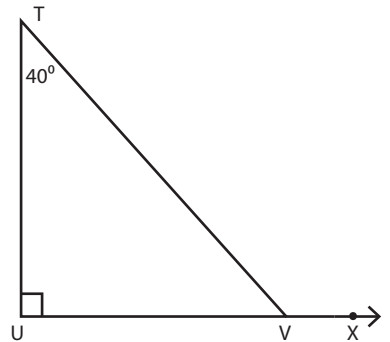
$$\angle PRX = \text{_____}$$

2)



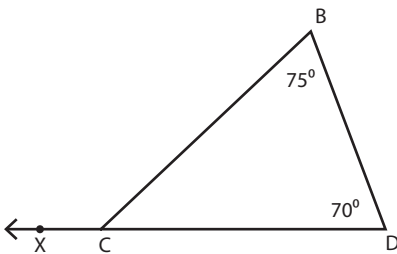
$$\angle DFX = \text{_____}$$

3)



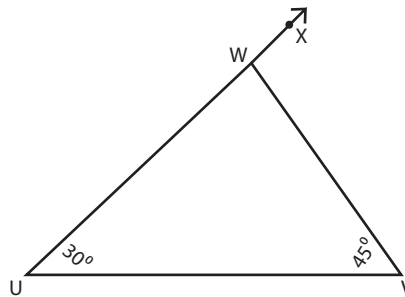
$$\angle TVX = \text{_____}$$

4)



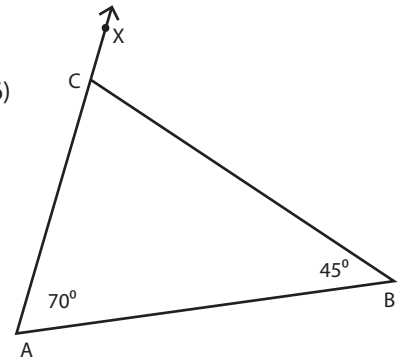
$$\angle BCX = \text{_____}$$

5)



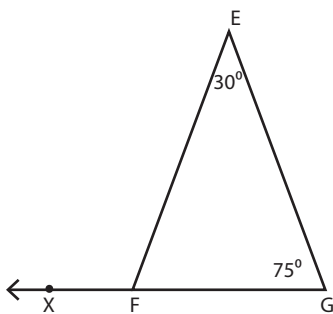
$$\angle VWX = \text{_____}$$

6)



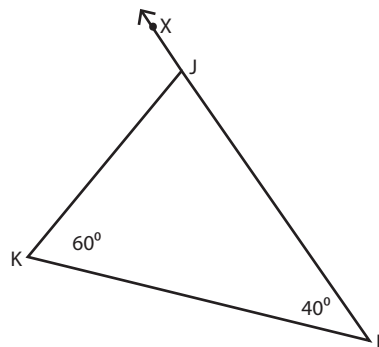
$$\angle BCX = \text{_____}$$

7)



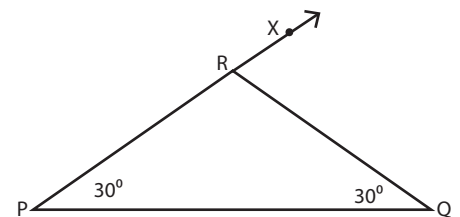
$$\angle EFX = \text{_____}$$

8)



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

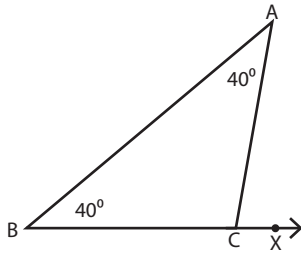
9)



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

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 $\angle B$

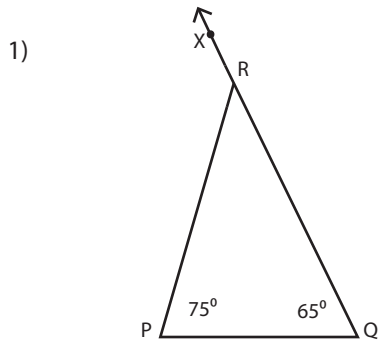
Exterior angle = Sum of opposite interior angles

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

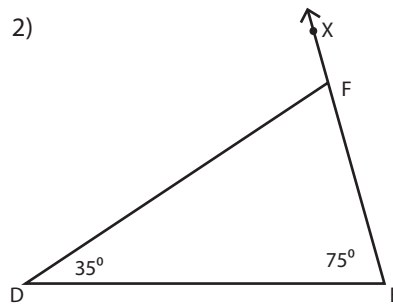
$$\angle ACX = 40^\circ + 40^\circ$$

$$\angle ACX = 80^\circ$$

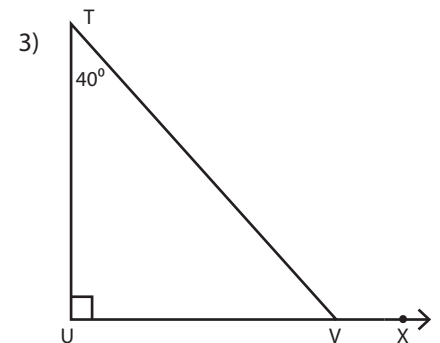
Find the unknown exterior angle for each triangle.



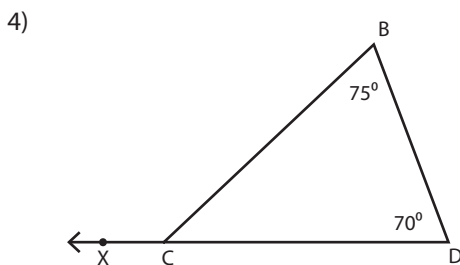
$$\angle PRX = 140^\circ$$



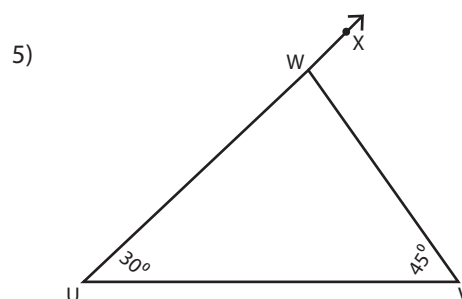
$$\angle DFX = 110^\circ$$



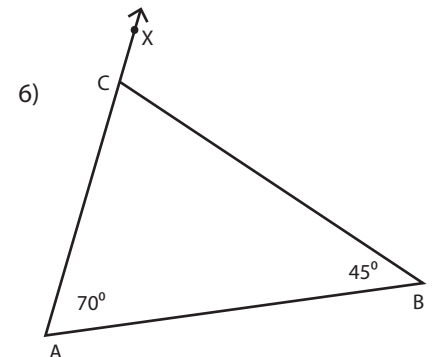
$$\angle TVX = 130^\circ$$



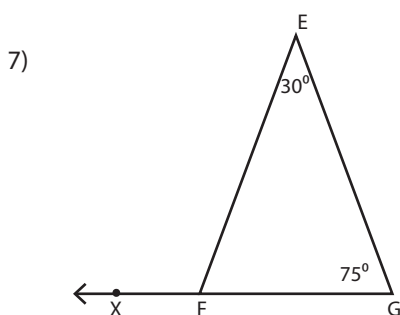
$$\angle BCX = 145^\circ$$



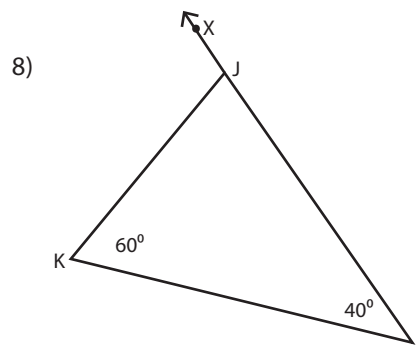
$$\angle VWX = 75^\circ$$



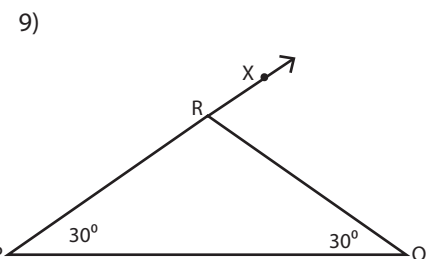
$$\angle BCX = 115^\circ$$



$$\angle EFX = 105^\circ$$



$$\angle KJX = 100^\circ$$



$$\angle QRX = 60^\circ$$