

Name: _____

Grade: _____

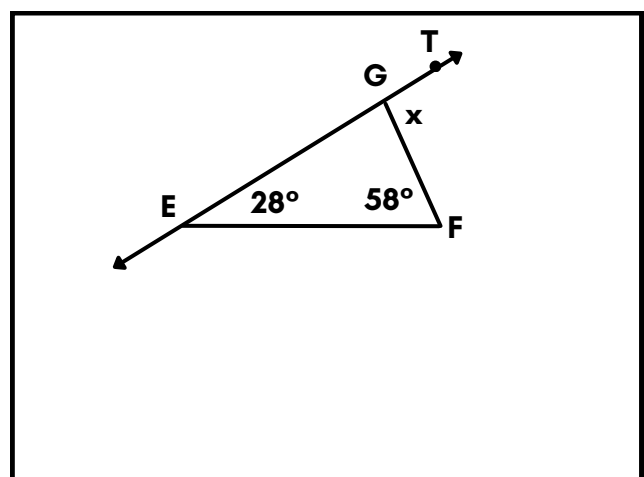
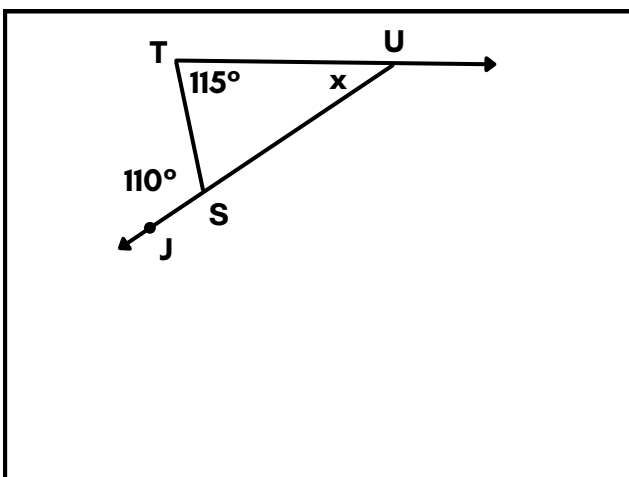
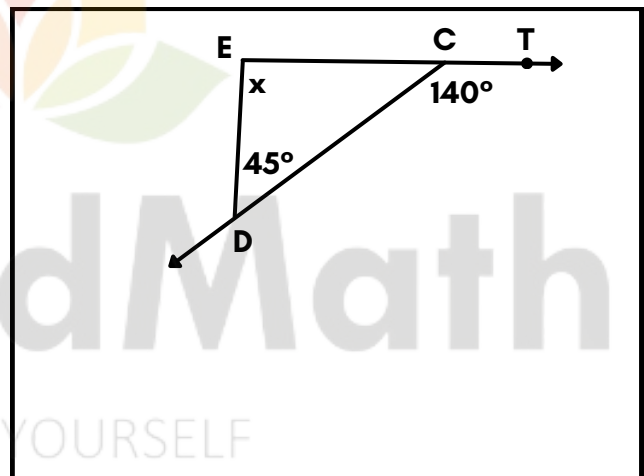
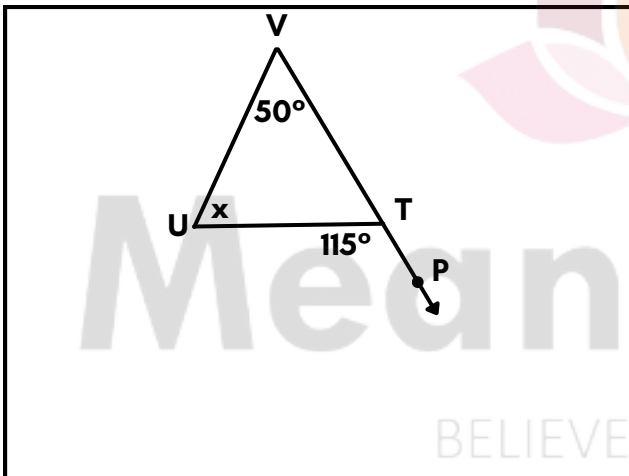
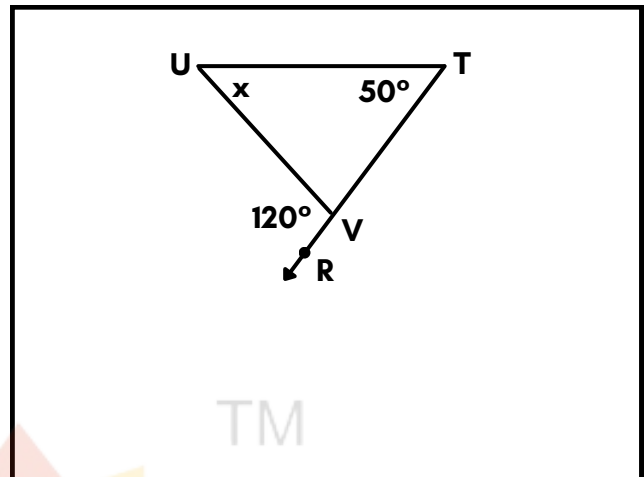
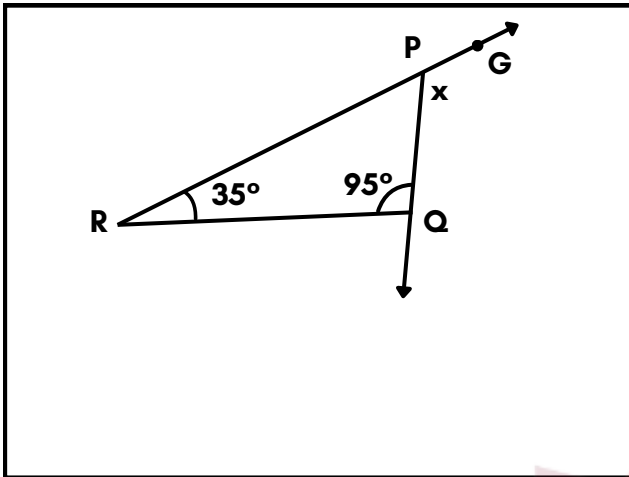
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Worksheet #3

**EXTERIOR ANGLE OF A TRIANGLE**

Learning goal: Students will be able to apply the exterior angle property of triangles to find unknown angles when two angles are given.

Instruction: Find the measure of missing angle in each triangle.



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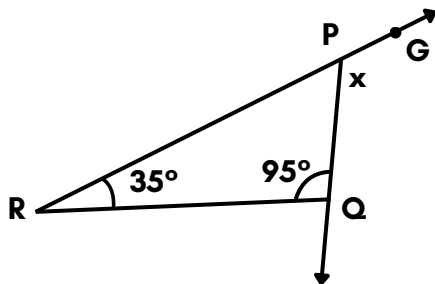
Worksheet #3(Answers)



EXTERIOR ANGLE OF A TRIANGLE

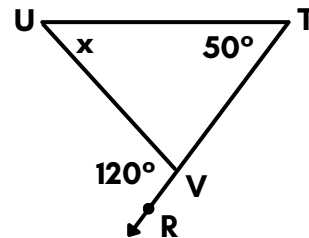
Learning goal: Students will be able to apply the exterior angle property of triangles to find unknown angles when two angles are given.

Instruction: Find the measure of missing angle in each triangle.



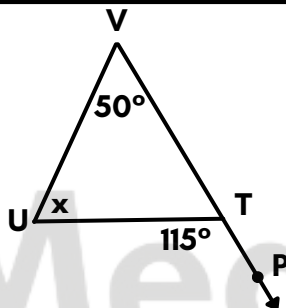
Solution:

$$\begin{aligned} x &= 180^\circ - (35^\circ + 95^\circ) \\ &= 180^\circ - 130^\circ = 50^\circ \\ x &= 50^\circ \end{aligned}$$



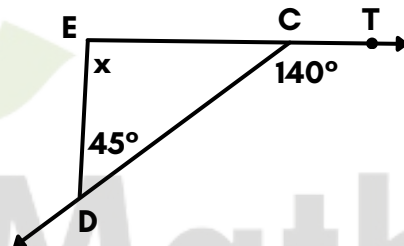
Solution:

$$\begin{aligned} \angle U + \angle T &= 120^\circ \\ \angle U &= 120^\circ - 50^\circ = 70^\circ \\ x &= 70^\circ \end{aligned}$$



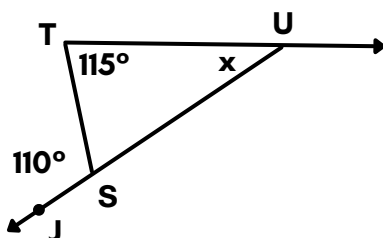
Solution:

$$\begin{aligned} x &= 180^\circ - (50^\circ + 115^\circ) \\ &= 180^\circ - 165^\circ = 15^\circ \\ x &= 15^\circ \end{aligned}$$



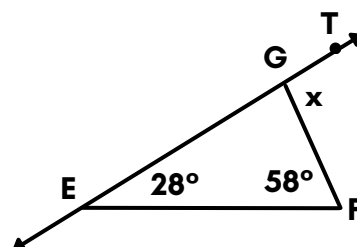
Solution:

$$\begin{aligned} \angle E + \angle D &= 140^\circ \\ \angle E &= 140^\circ - 45^\circ = 95^\circ \\ x &= 95^\circ \end{aligned}$$



Solution:

$$\begin{aligned} x &= 180^\circ - (80^\circ + 70^\circ) \\ &= 180^\circ - 150^\circ = 30^\circ \\ x &= 30^\circ \end{aligned}$$



Solution:

$$\begin{aligned} x &= 180^\circ - (28^\circ + 58^\circ) \\ &= 180^\circ - 86^\circ = 94^\circ \\ x &= 94^\circ \end{aligned}$$