

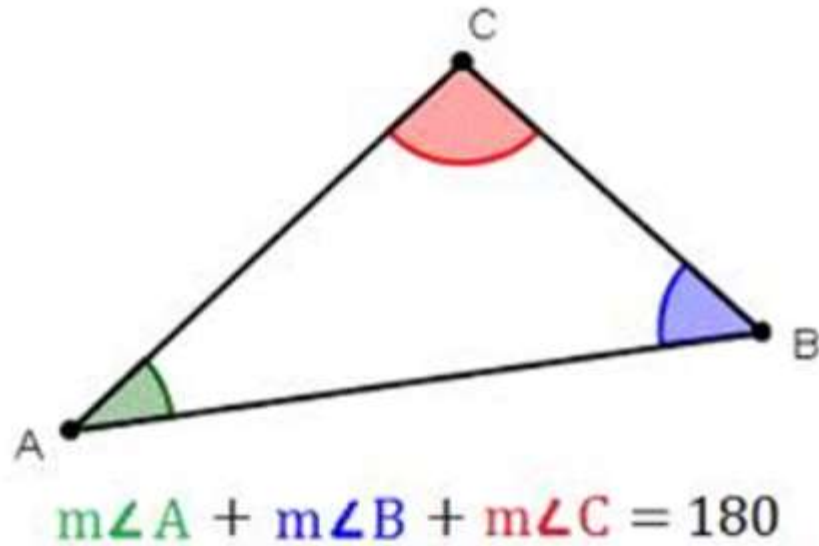
Triangle Sum Theorem & Exterior Angles

Objective:

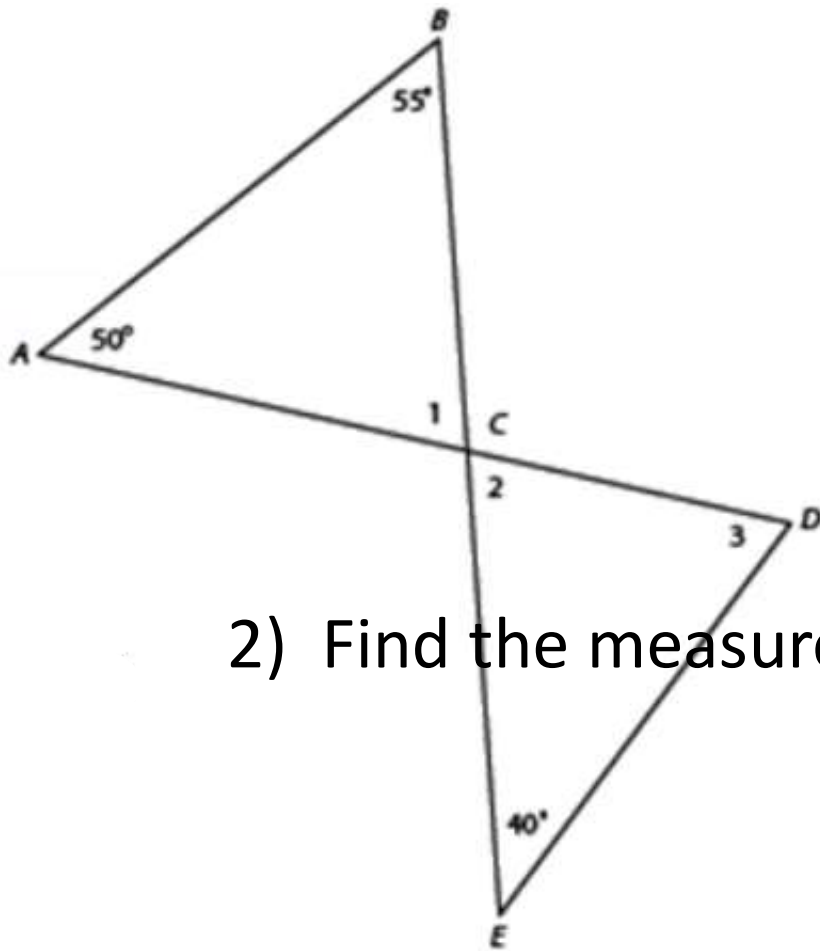
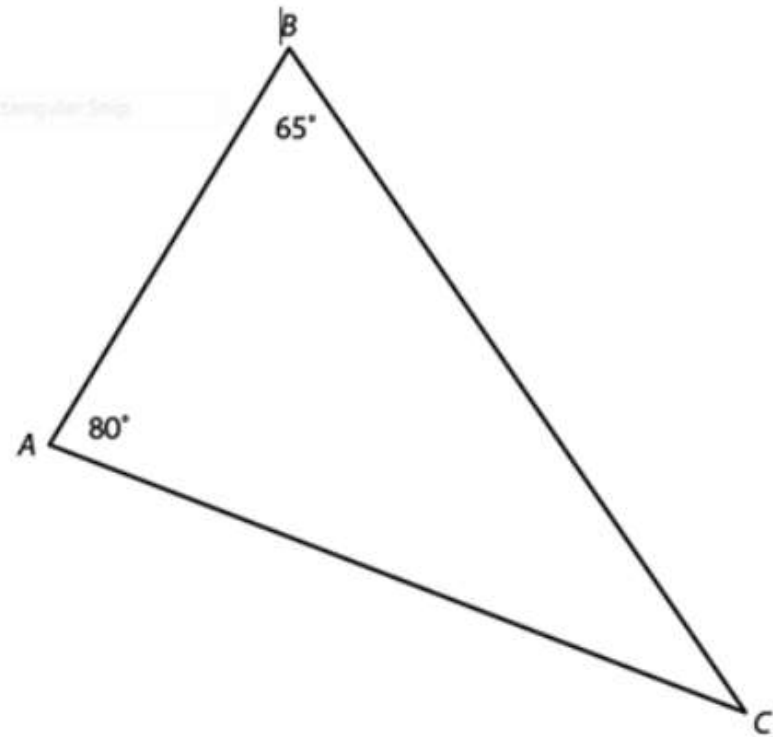
- Use the triangle sum theorem to find missing angle measurements in a triangle
- Use the exterior angle theorem to find missing angle measurements in a triangle

What do the angles of a triangle sum to?

Triangle Sum Theorem: Angles in a triangle sum to 180°

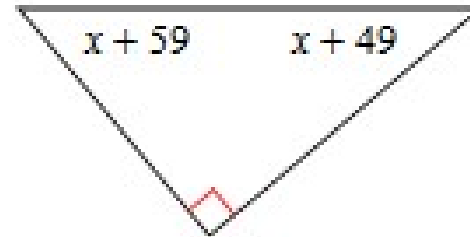


1. Find the measure of $\angle C$.

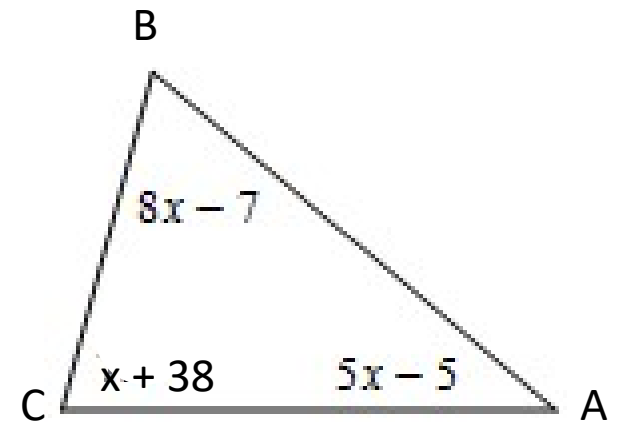


2) Find the measure of $\angle 1$, $\angle 2$, $\angle 3$.

3. Find the value of x .



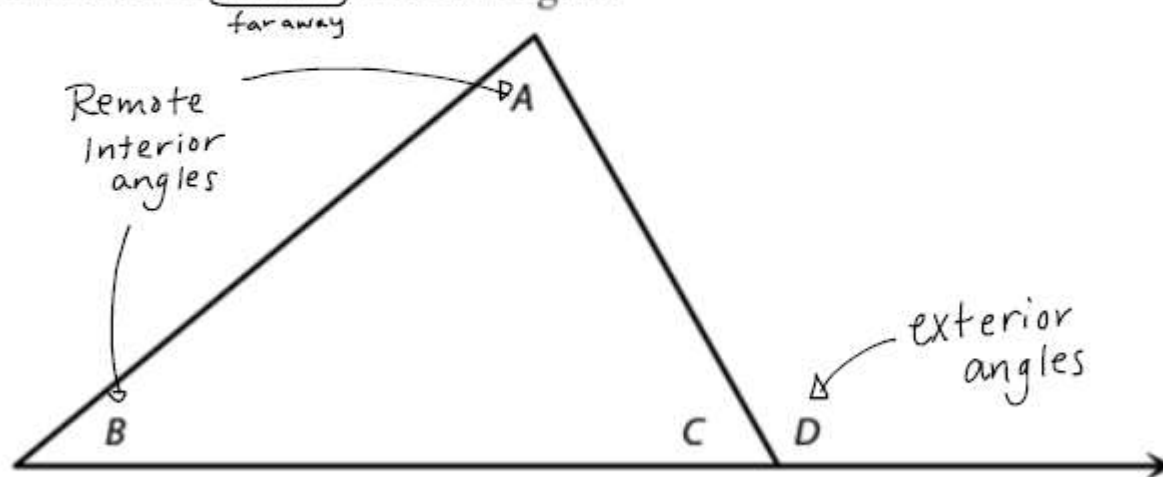
4. Find the measure of angle A.



Theorem

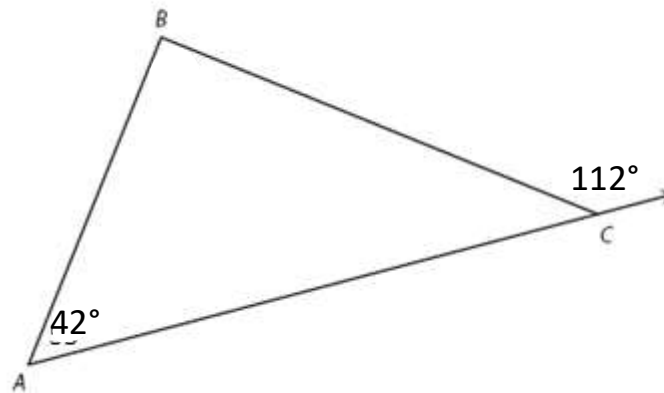
Exterior Angle Theorem

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

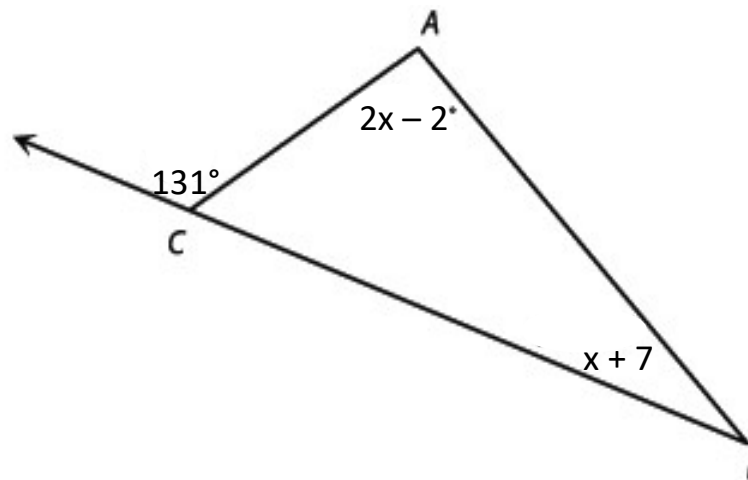


$$m\angle D = m\angle A + m\angle B$$

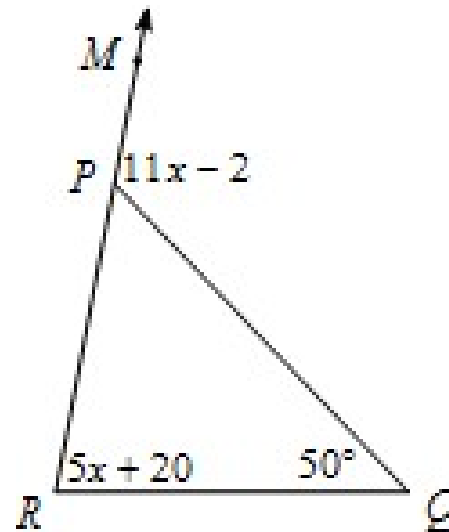
1. Find $m\angle B$



2. Find the $m\angle CAB$



1. Find the $m\angle RPQ$



Can you...

- Solve for missing angles using the triangle sum theorem?
- Solve for missing angles using the exterior angle theorem?

Assignment

8.1 Worksheet and XL