Glue here

Triangle Sum & Inequality Theorem

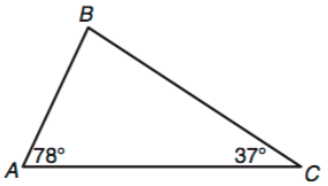
Exterior & Remote Angles of Triangles

Side/Angle Relationships of Triangles

Triangle Sum Theorem
The sum of the measures of the interior angles of a triangle is 180°.

Triangle Inequality Theorem
The sum of the two shortest side lengths of a triangle, is always greater than the longest side length.

Find the missing angle measure.



$m\angle B =$ _____

Can a triangle be formed with the following side lengths?

1. 3 in., 2.9 in., 5 in.?

2. 4 m, 5.1 m, 12.5m?

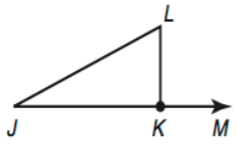
Exterior Angle Theorem: The measure of an exterior angle of a triangle is equal to the sum of the measures of the remote interior angles of the triangle.

Remote Interior Angles of Triangles
Two angles that are non-adjacent to the specified exterior angle.

Identify the Exterior Angle and Remote Angles

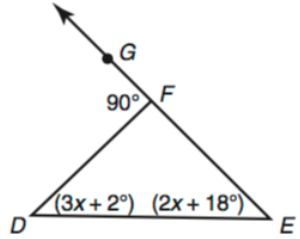
Exterior: _____

Remote: _____



$m\measuredangle$___ + $m\measuredangle$___ = $m\measuredangle$_____

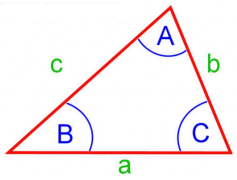
Find the value of x.



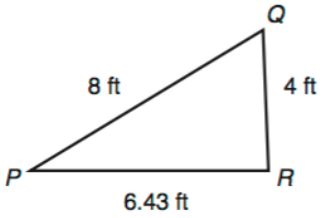
Side/Angle Relationship of Triangles
Each angle in a triangle, corresponds to the opposite side length of a triangle.

Smallest angle measure corresponds to shortest side length.
Largest angle measure corresponds to longest side length.

$\angle A$ corresponds to side a.
$\angle B$ corresponds to side b.
$\angle C$ corresponds to side c.



List angle measures from greatest to least.



List the side lengths from least to greatest.