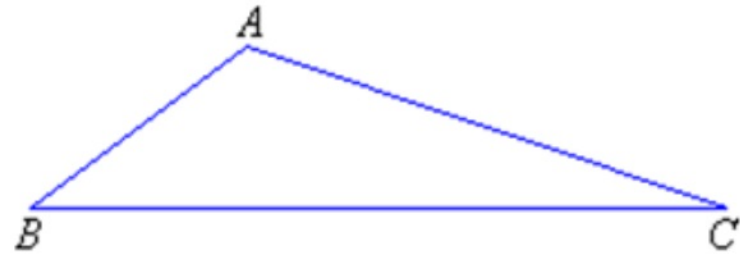


## 3-4: Parallel Lines and Triangle Angle-Sum Theorem HSG-CO.C.10

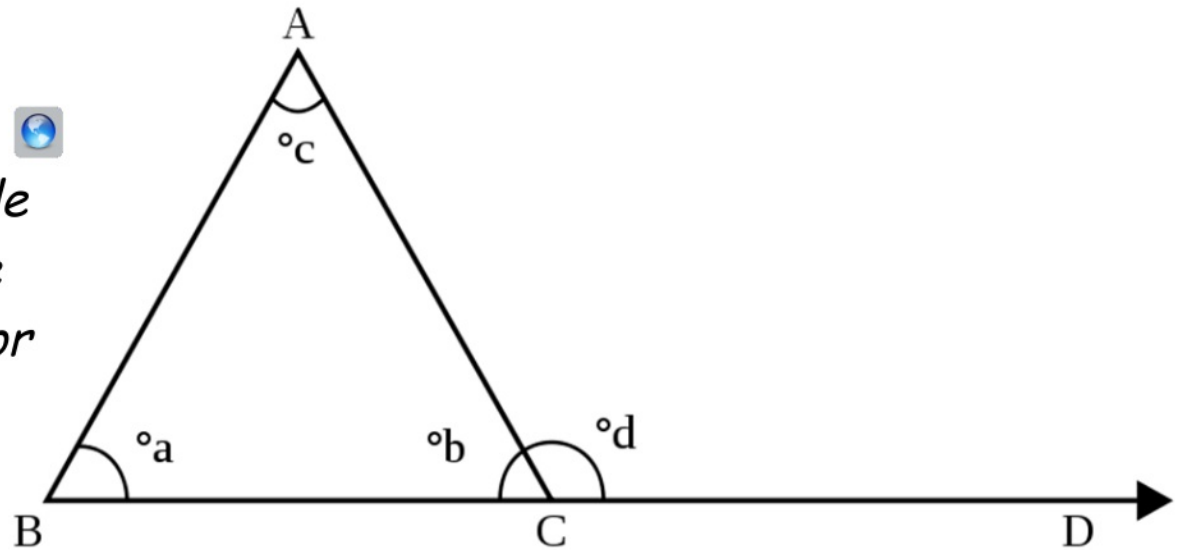
### Triangle Angle-Sum Theorem

*The sum of the measures of a triangle is 180.*

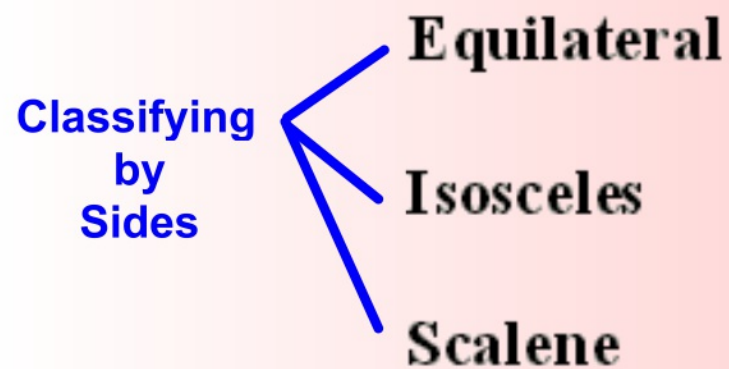
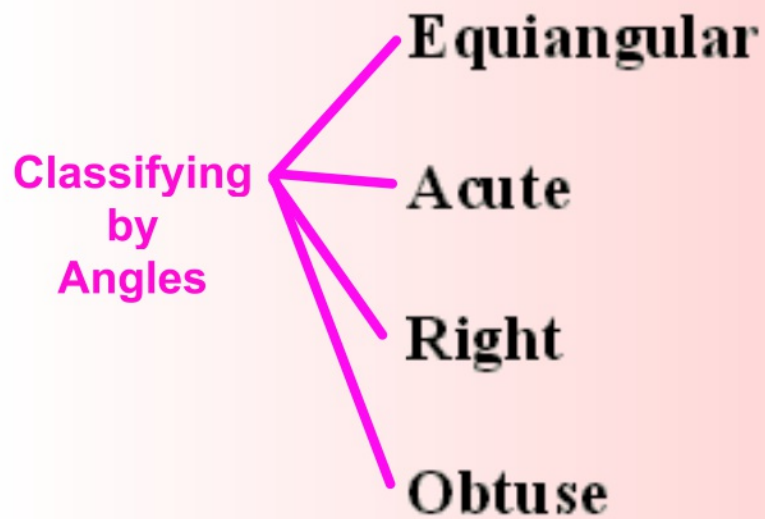


### Triangle Exterior Angle Theorem

*The measure of each exterior angle of a triangle equals the sum of the measures of its two remote interior angles.*

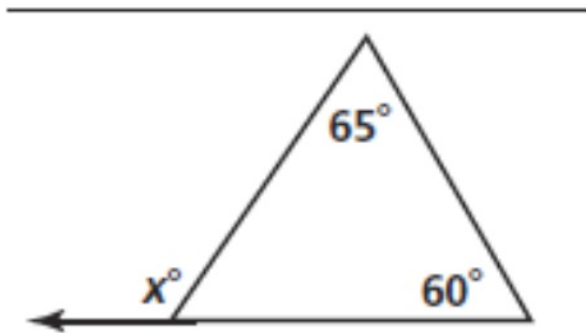


## Classifying Triangles: (Picture and Definition)

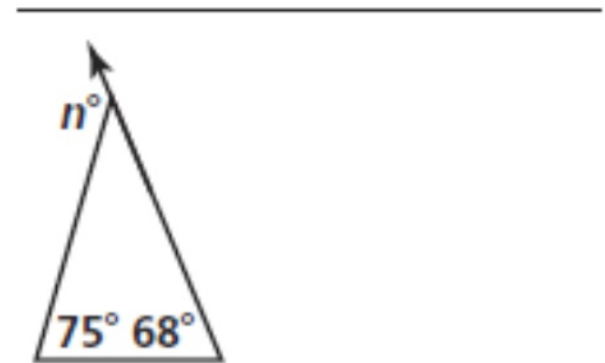


Find the value of each variable.

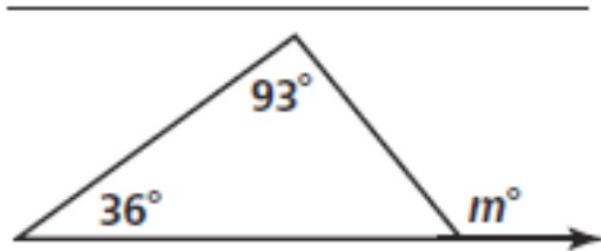
1.



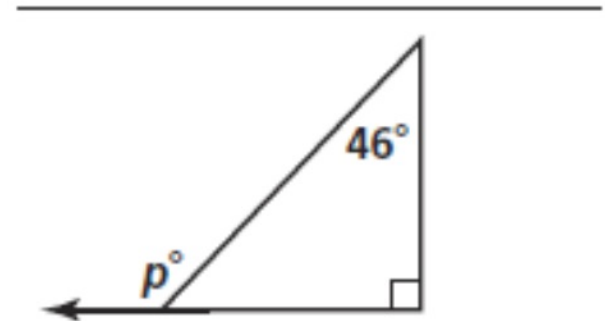
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3.

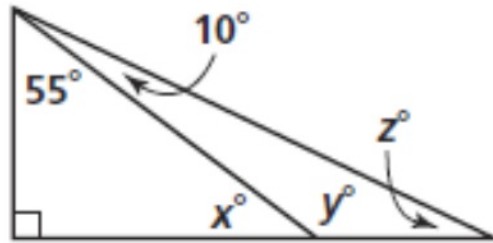


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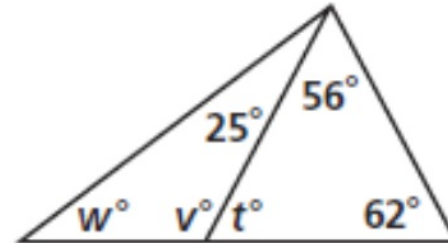


Find the value of each variable.

5.

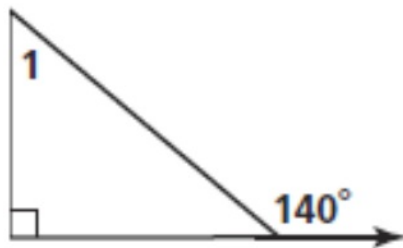


6.

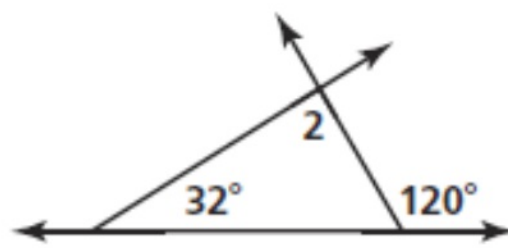


Find the measure of each numbered angle.

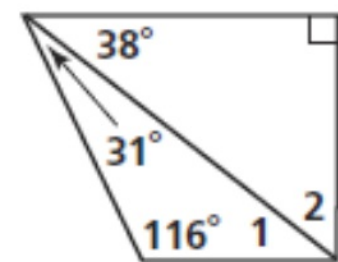
7.



8.



9.



**Goal:** To learn and apply the triangle-angle sum and the triangle exterior angle theorems and classify triangles.

**Essential Questions:**

1. What is the triangle angle sum theorem and when do you use it?
2. What is the triangle exterior angle theorem and when do you use it?
3. What are the ways to classify a triangle by its sides?
4. What are the ways to classify a triangle by its angles?

Assignment: **page 150: 1-6, 16-26**