Finding the Interior Angle of a Triangle

6.10A
Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to solve problems. The student is expected to:
(A) model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts;

7.11C
Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:
(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.

8.8D
Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. The student is expected to:
(D) use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

My teacher's learning goals for me are that I will be able to:

- Discover the sum of the interior angles of a triangle.
- Calculate the missing angle of a triangle.
- Write an equation and solve it to calculate the missing measure.
- **Don't get tricked...Answer what the question is asking me to calculate!**

I will master the **learning goals** for **Finding the Interior Angle of a Triangle** with at least _____ mastery by:

1) **Asking** questions when I'm not sure of something and **answering** questions when I know the answer.
2) _____

   _____
3) _____

   _____

Exploring the Interior Angles of Triangles

-You should have your triangle that you cut out in class. Each corner should be highlighted like the triangle at the right.

Tear off two of the three angles from your triangle and line them up with the highlighted point touching the mark on the line below.

What Do you notice about the three interior angles of a triangle?

The three interior angles of a triangle form a _____ _____ when we tore them and placed them together.

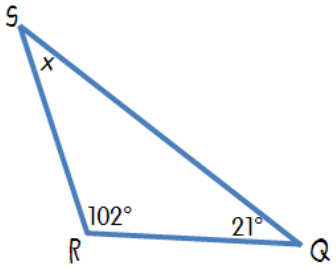
The sum of the three angles of a triangle is _____.

_____ + _____ + _____ = _____

I do... you follow along and process

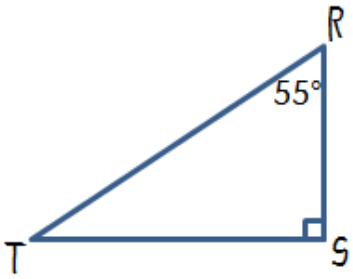
Finding the Interior Angle of a Triangle

A.



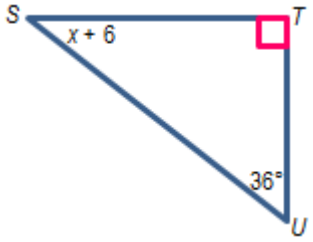
$m\angle S =$ _____

B.



$m\angle T =$ _____

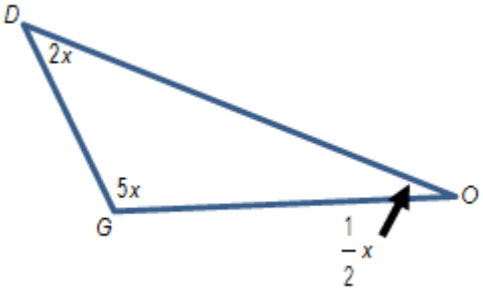
C.



$x =$ _____ $m\angle T =$ _____

$m\angle S =$ _____ $m\angle U =$ _____

D.



$x =$ _____ $m\angle O =$ _____

$m\angle D =$ _____ $m\angle G =$ _____