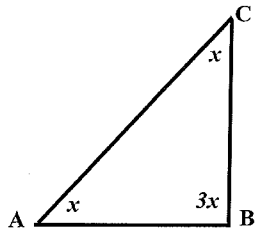
12.6 WORKSHEET

Name_____

SUM OF THE INTERIOR ANGLES OF A TRIANGLE

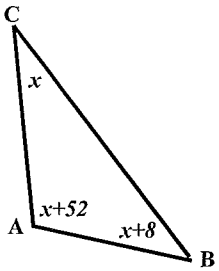
Directions: Solve for x in each of the triangles below. The Triangle Sum Theorem states that the interior angles of a triangle always add up to 180°. Your first step should be to set up an equation where the sum of the angles adds up to 180°. Solve the equation for x, then plug that value back in to the expressions to find the measure of the missing angles.

1) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

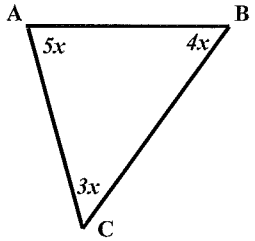
$\angle C =$ ____

2) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

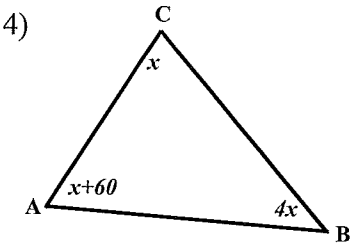
$\angle C =$ ____

3) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

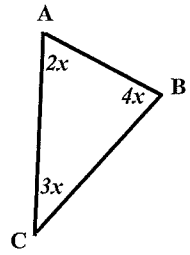
$\angle C =$ ____

4) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

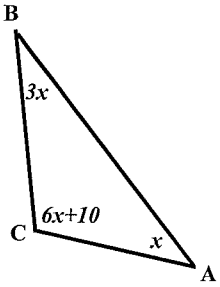
$\angle C =$ ____

5) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

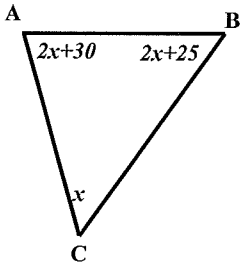
$\angle C =$ ____

6) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

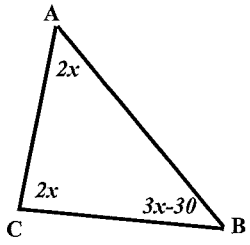
$\angle C =$ ____

7) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

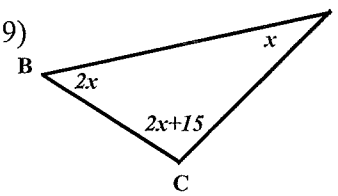
$\angle C =$ ____

8) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

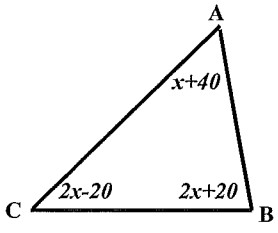
$\angle C =$ ____

9) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

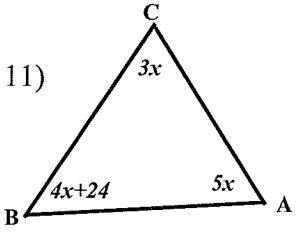
$\angle C =$ ____

10) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

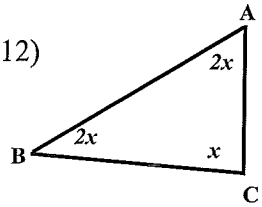
$\angle C =$ ____

11) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

$\angle C =$ ____

12) 

$\angle A =$ ____

$x =$ ___ $\angle B =$ ____

$\angle C =$ ____