Name:_____ Date:_____

HW Math 9 Section 8b: Understanding angles in a Triangle

1. What is the sum of all three angles in any triangle?

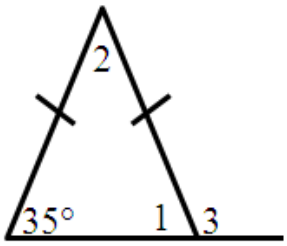
2. In an equilateral triangle, what is the value of each angle?

3. In a right triangle, if one angle is $63°$, then what is the value of the third angle?

4. If one angle in an isosceles triangle is $34°$, then what is the value of the other two angles?

5. Given each of the following images, find the value of the missing angles. Provide reasons for your answers:

a)

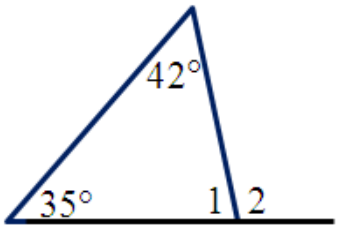


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

$\angle 3 =$ ____ _____

b)

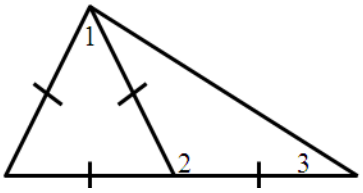


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

$\angle 3 =$ ____ _____

c)

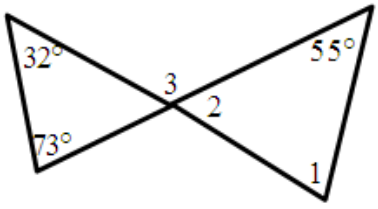


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

$\angle 3 =$ ____ _____

d)

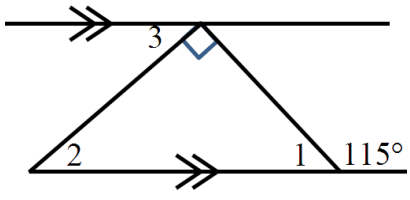


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

$\angle 3 =$ ____ _____

e)

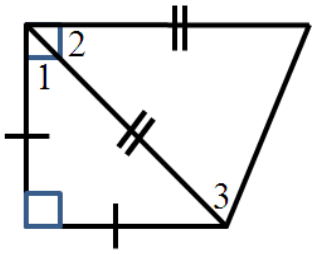


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

$\angle 3 =$ ____ _____

f)

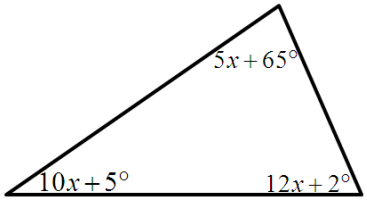


$\angle 1 =$ ____ _____

$\angle 2 =$ ____ _____

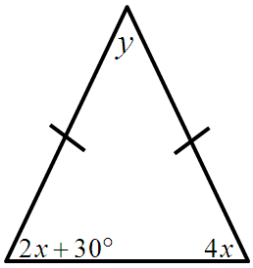
$\angle 3 =$ ____ _____

g)



$x =$ ____ _____

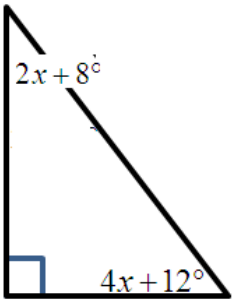
h)



$x =$ ____ _____

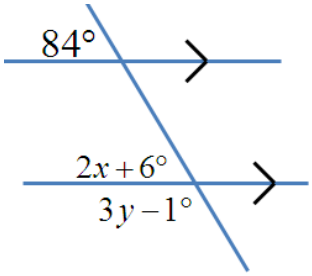
$y =$ ____ _____

i)



$x =$ ____ _____

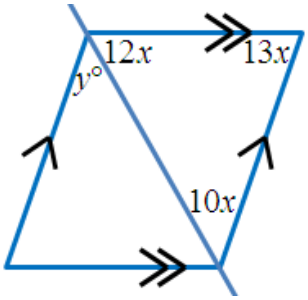
j)



$x =$ ____ _____

$y =$ ____ _____

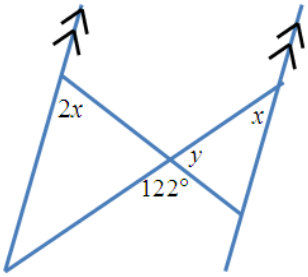
k)



$x =$ ____ _____

$y =$ ____ _____

L)



$x =$ ____ _____

$y =$ ____ _____