Geometry Honors   Mathematician: _____
Unit 8: Similarity within Triangles   Period:_____
8.3 Review

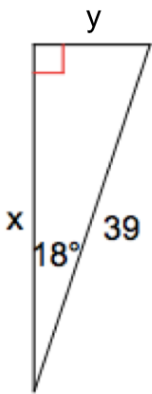Directions: Find the value of the given variables by using trigonometric ratios.

1)

x
67°
39
y

x = _____   y = _____

2)

y
47°
25
x

x = _____   y = _____

3)

y
x
18°
39

x = _____   y = _____

4)

x   59°
38
y

x = _____   y = _____
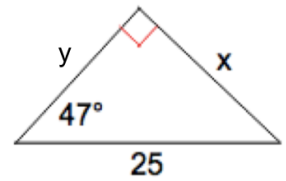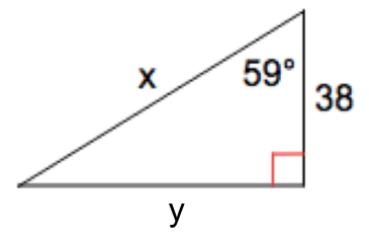
Directions: Find the indicated measures.

5)

17
?
6

? = _____

6)

?
14
18

? = _____

7)

53   z°
y°   x
46

x = _____   y = _____   z = _____

8)

z°
x   25
y°
34

x = _____   y = _____   z = _____
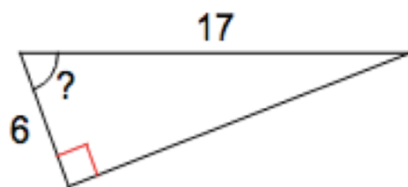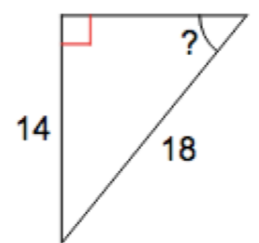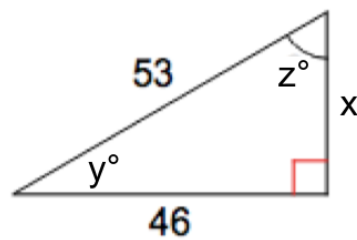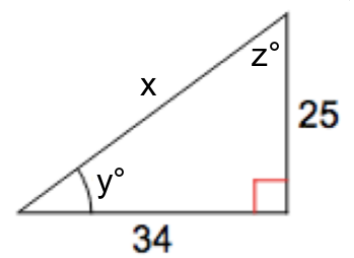
Directions: Find the indicated measures.

9)

53°
45
70°
x

10)

45
68°
42°
x
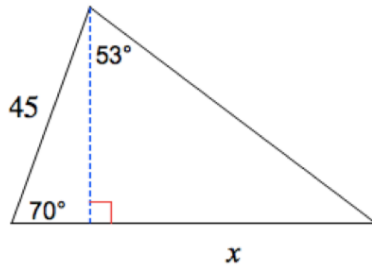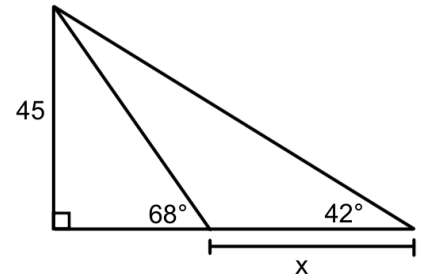
Directions: Find the area of the given triangle.

11)

46°   38°
47

Area: _____

12)

44°
22°
41
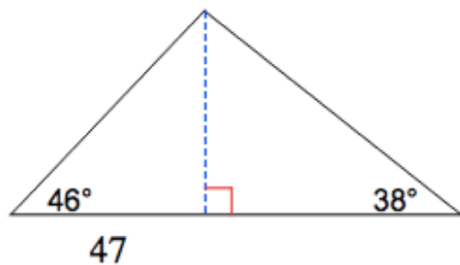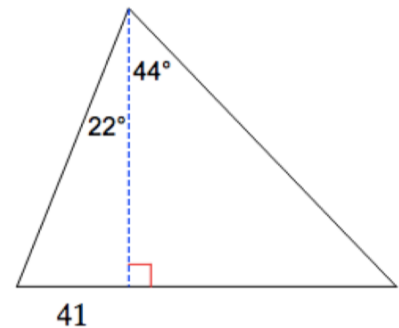
Area: _____

Directions: Draw a picture that represents the given scenario. Then solve for the indicated length. Don't forget to include units in your answer!

13)   Angie looks up at an angle of elevation of 13° to see an airplane flying. If the plane were flying with an altitude of 4.75 miles, what straight line distance would the plane travel before it is directly over Angie?

Answer: _____

14)   Mike and Andy are standing directly across from each other on opposite sides of a river. Directly to Mike's right, he sees a tree that is 20 ft. away. Andy sees the same tree at an angle of 32°. How wide is the river between Mike and Andy? (Assume the tree is perpendicular to Mike and Andy)

Answer: _____