

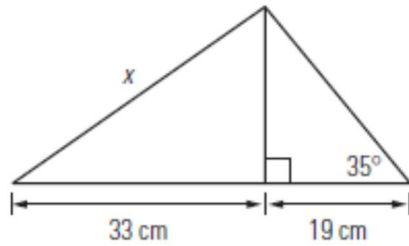
Apprenticeship Math 12
ASSIGNMENT: Multiple Right Triangles

Name: _____

Date: _____

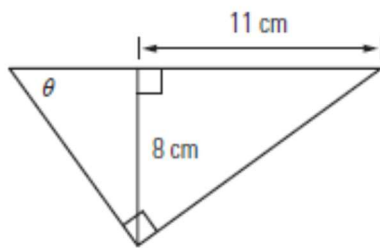
1. Calculate the indicated values. Round lengths to the nearest tenth and angles to the nearest degree.

a)



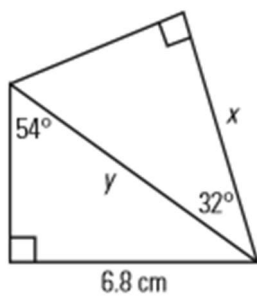
$x =$ _____

b)



$\theta =$ _____

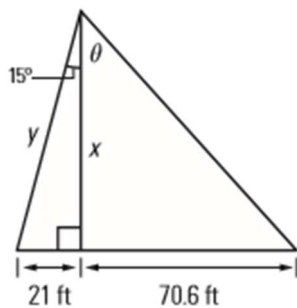
c)



$x =$ _____

$y =$ _____

d)

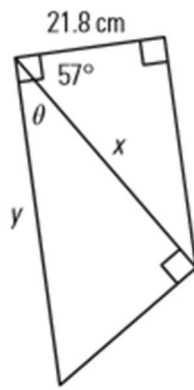


$x =$ _____

$y =$ _____

$\theta =$ _____

e)

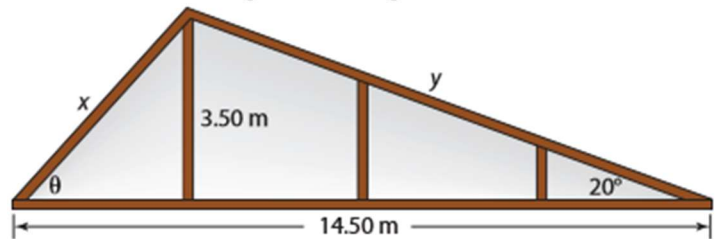


$x =$ _____

$y =$ _____

$\theta =$ _____

2. Mary is helping to build a cabin. The diagram below shows the design of the roof trusses.



a) How many right triangles do you see? _____

b) Determine the value of the unknown angle (θ), to the nearest degree.

$\theta =$ _____

c) Determine the lengths of x and y , to the nearest hundredth.

$x =$ _____

$y =$ _____

- 1. a) $x = 35.6$ cm
- b) $\theta = 54^\circ$
- c) $x = 7.1$ cm, $y = 8.4$ cm
- d) $x = 78.4$ ft, $y = 81.1$ ft, $\theta = 42^\circ$
- e) $x = 40.0$ cm, $y = 47.7$ cm, $\theta = 33^\circ$
- 2. a) 4
- b) $\theta = 36^\circ$
- c) $x = 6.06$ m, $y = 10.23$ m