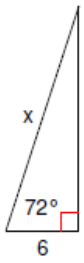
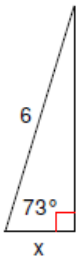
Solving Right Triangles

Find the missing side. Round to the nearest tenth.

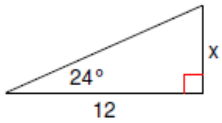
1)



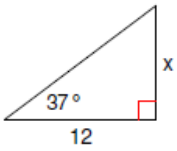
2)



3)



4)



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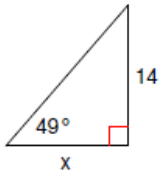
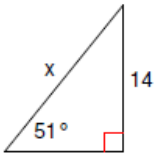
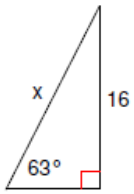


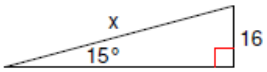
6)



7)



8)

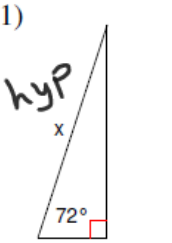


Solving Right Triangles … Set 4

Answers

Find the missing side. Round to the nearest tenth.

1)



$\cos\theta = \frac{adj}{hyp}$

$\cos 72^\circ = \frac{6}{x}$

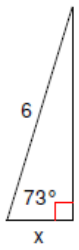
$x \cos 72^\circ = 6$

$x = \frac{6}{\cos 72^\circ}$

$x = 19.4$

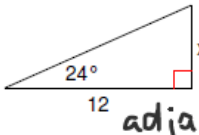
19.4

2)



1.8

3)



opposite

adjacent

5.3

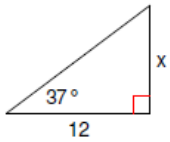
$\tan\theta = \frac{opp}{adj}$

$\tan 24^\circ = \frac{x}{12}$

$12 \tan 24^\circ = x$

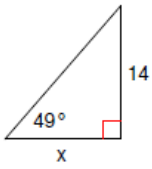
$5.3 = x$

4)



9.0

5)



12.2

$\tan\theta = \frac{opp}{adj}$

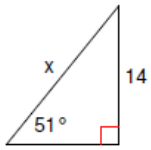
$\tan 49^\circ = \frac{14}{x}$

$x \tan 49^\circ = 14$

$x = \frac{14}{\tan 49^\circ}$

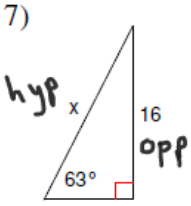
$x = 12.2$

6)



18.0

7)



18.0

$\sin\theta = \frac{opp}{hyp}$

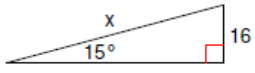
$\sin 63^\circ = \frac{16}{x}$

$x \sin 63^\circ = 16$

$x = \frac{16}{\sin 63^\circ}$

$x = 18$

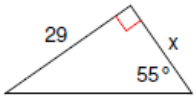
8)



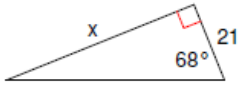
61.8

Solving Right Triangles … Set 4

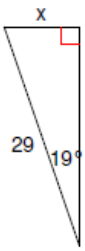
9)



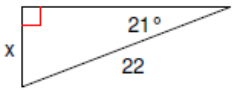
10)



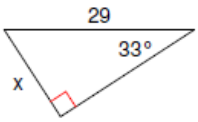
11)



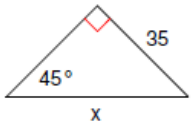
12)



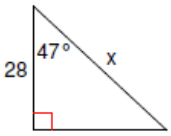
13)



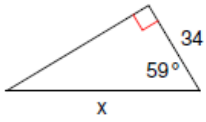
14)



15)



16)

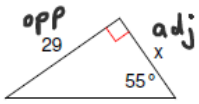


Critical thinking question:

17) Write a new problem that is similar to the others on this worksheet. Solve the question you wrote.

Solving Right Triangles … Set 4

Answers

9) 

20.3

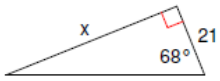
$\tan\theta = \frac{opp}{adj}$

$\tan 55° = \frac{29}{x}$

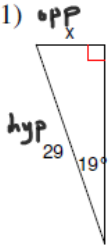
$x \tan 55° = 29$

$x = \frac{29}{\tan 55°}$

$x = 20.3$

10) 

52.0

11) 

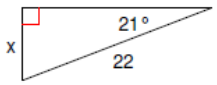
9.4

$\sin\theta = \frac{opp}{hyp}$

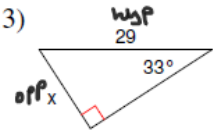
$\sin 19° = \frac{x}{29}$

$29 \sin 19 = x$

$9.4 = x$

12) 

7.9

13) 

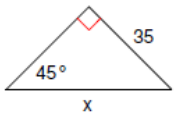
15.8

$\sin\theta = \frac{opp}{hyp}$

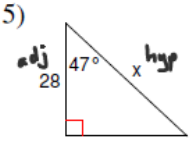
$\sin 33° = \frac{x}{29}$

$29 \sin 33° = x$

$15.8 = x$

14) 

49.5

15) 

41.1

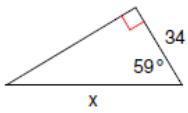
$\cos\theta = \frac{adj}{hyp}$

$\cos 47° = \frac{28}{x}$

$x \cos 47° = 28$

$x = \frac{28}{\cos 47°}$

$x = 41.1$

16) 

66.0

Critical thinking question:

17) Write a new problem that is similar to the others on this worksheet. Solve the question you wrote.

Many answers.