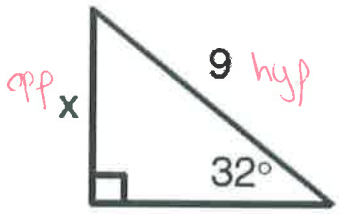
Find Side Lengths Using Trig Worksheet #2

Math 9
Jensen

1.



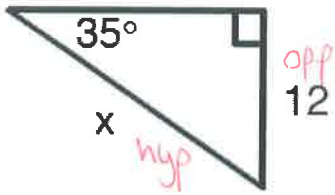
$\sin\theta = \frac{opp}{hyp}$

$\sin 32 = \frac{x}{9}$

$9(\sin 32) = x$

$x = 4.8$

2.

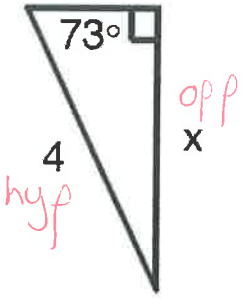


$\sin 35 = \frac{12}{x}$

$x = \frac{12}{\sin 35}$

$x = 20.9$

3.

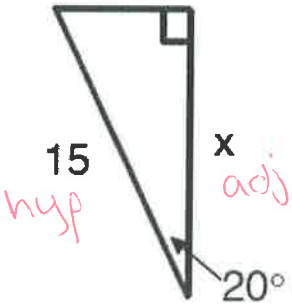


$\sin 73 = \frac{x}{4}$

$4(\sin 73) = x$

$x = 3.8$

4.

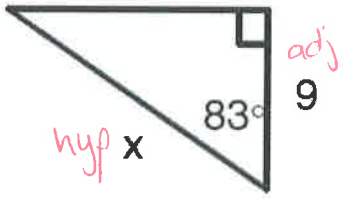


$\cos 20 = \frac{x}{15}$

$15(\cos 20) = x$

$x = 14.1$

5.

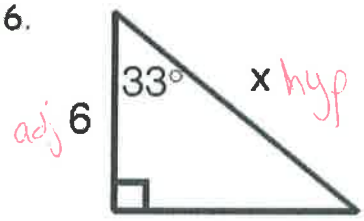


$\cos 83 = \frac{9}{x}$

$x = \frac{9}{\cos 83}$

$x = 73.8$

6.

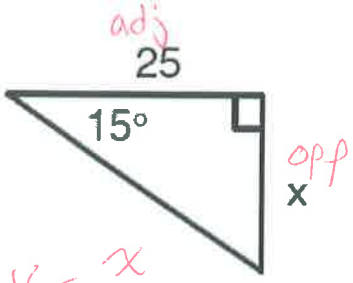


$\cos 33 = \frac{6}{x}$

$x = \frac{6}{\cos 33}$

$x = 7.2$

7.

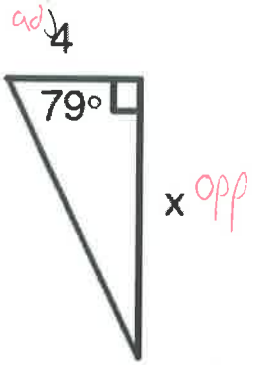


$\tan 15 = \frac{x}{25}$

$25(\tan 15) = x$

$x = 6.7$

8.

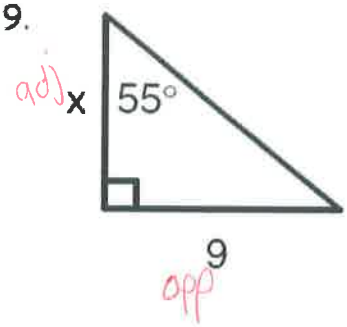


$\tan 79 = \frac{x}{4}$

$4(\tan 79) = x$

$x = 20.6$

9.



$\tan 55 = \frac{9}{x}$

$x = \frac{9}{\tan 55}$

$x = 6.3$

10. hypotenuse is 12, an angle is 12°, find the side opposite the angle

$\sin 12 = \frac{x}{12}$

$12(\sin 12) = x$

$x = 2.5$

11. hypotenuse is 32, an angle is 65°, find the side adjacent to the angle

$\cos 65 = \frac{x}{32}$

$32(\cos 65) = x$

$x = 13.5$

12. an angle is 40°, the side opposite is 19, find the adjacent side

$\tan 40 = \frac{19}{x}$

$x = \frac{19}{\tan 40}$

$x = 22.6$

13. an angle is 76°, the side opposite is 3, find the hypotenuse

$\sin 76 = \frac{3}{x}$

$x = \frac{3}{\sin 76}$

$x = 3.1$

14. an angle is 63°, the side adjacent is 28, find the hypotenuse

$\cos 63 = \frac{28}{x}$

$x = \frac{28}{\cos 63}$

$x = 61.7$

15. an angle is 52°, the side adjacent is 66, find the opposite side

$\tan 52 = \frac{x}{66}$

$66(\tan 52) = x$

$x = 84.5$