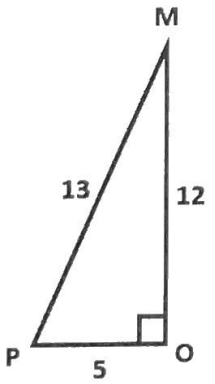
6.4 HW SOHCAHTOA Missing Sides Key Geometry

Directions: Write the trigonometric ratio as a fraction and as a decimal rounded to the nearest hundredth.

1) sin P $\frac{12}{13}$ .92

2) cos M $\frac{12}{13}$ .92

3) tan P $\frac{12}{5}$ 2.4



4) cos P $\frac{5}{13}$ .38

5) sin M $\frac{5}{13}$ .38

6) tan M $\frac{5}{12}$ .42

Directions: Use your calculator to find each trigonometric ratio to the nearest tenth.

7) cos 25° .9

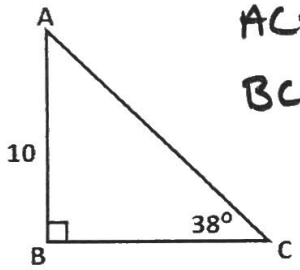
8) tan 30° .6

9) sin 30° .5

10) cos 45° .7

Directions: Find each length. Round to the nearest hundredth.

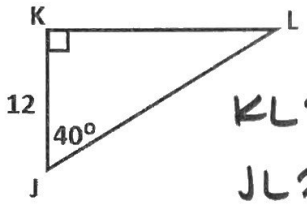
11) AC & BC



$AC \approx 16.24$

$BC \approx 12.8$

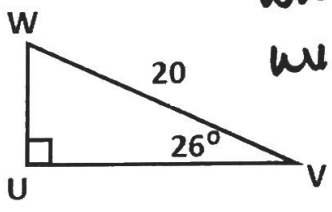
12) KL & JL



$KL \approx 10.07$

$JL \approx 15.66$

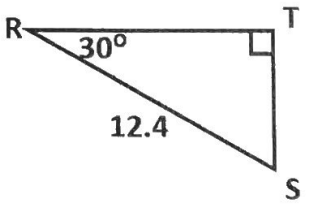
13) WU & UV



$WU \approx 8.77$

$WV \approx 17.98$

14) RT & TS

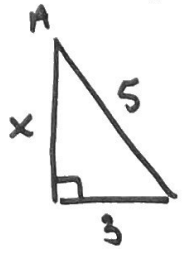


$RT \approx 10.74$

$TS \approx 6.2$

Directions: Draw a right triangle to represent each trigonometric ratio. Then, find the missing side.

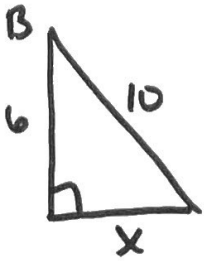
15) $\sin A = \frac{3}{5}$



X=4

*use Pyth. Th.

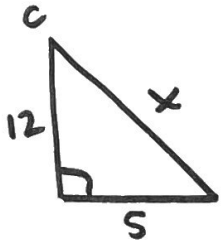
16) $\cos B = \frac{6}{10}$



X=8

*use Pyth. Th.

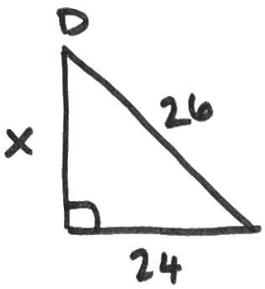
17) $\tan C = \frac{5}{12}$



X=13

*use Pyth. Th.

18) $\sin D = \frac{24}{26}$

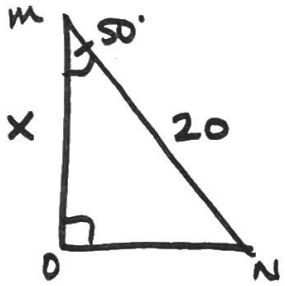


X=10

*use Pyth. Th

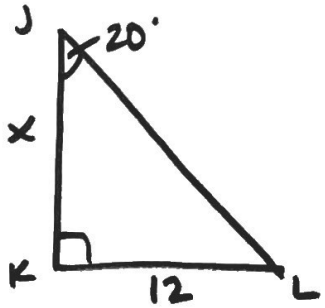
Directions: Draw a triangle to represent the given situation. Then, find each missing side.

19) M, O, and N are the vertices of a right triangle. Angle M is 50° & MN = 20. MN is the hypotenuse. What is MO to the nearest tenth?



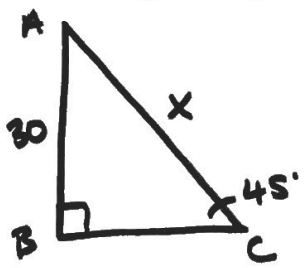
X=12.9

20) J, K, and L are the vertices of a right triangle. Angle J is 20°. KL = 12. If JK is a leg, what is JK to the nearest hundredth?



X = 32.97

21) A, B, and C are the vertices of a right triangle. Angle C is 45° and AB = 30. If CB is a leg, what is the exact length of AC?



$X = 30\sqrt{2}$