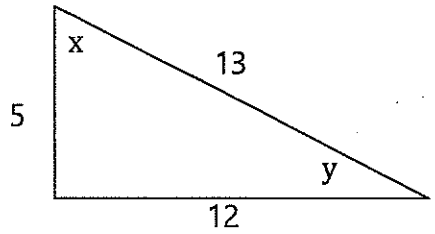
Trig Ratio Practice

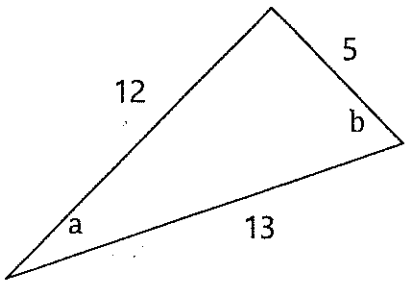
Find the following Ratios:
leave as a fraction



1) sin y = $\frac{5}{13}$

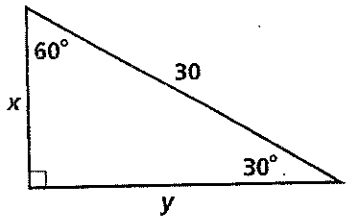
2) cos X = $\frac{5}{13}$

3) tan X = $\frac{12}{5}$



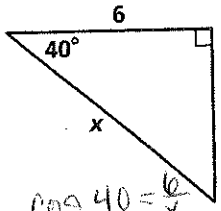
4) sin(a) = $\frac{5}{13}$

5) cos(b) = $\frac{5}{13}$

1. 

$x = 15$

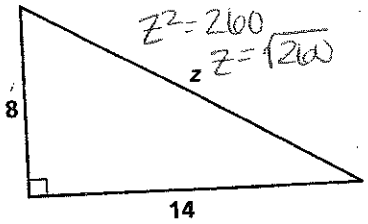
$y = 15\sqrt{3}$

2. 

$\cos 40 = \frac{6}{x}$

$x = \frac{6}{\cos 40}$

$x = 7.8$

3. 

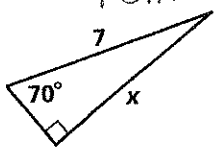
$8^2 + 14^2 = z^2$

$64 + 196 = z^2$

$z^2 = 260$

$z = \sqrt{260}$

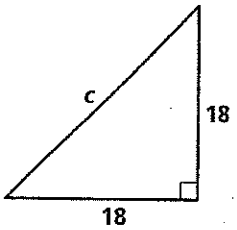
$z = 2\sqrt{65}$

4. 

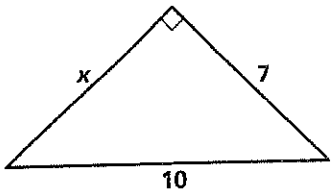
$\sin 70 = \frac{x}{7}$

$x = 7 \cdot \sin 70$

$x = 6.6$

5. 

$c = 18\sqrt{2}$

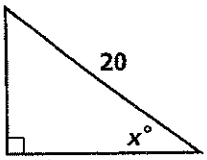
6. 

$x^2 + 7^2 = 10^2$

$x^2 + 49 = 100$

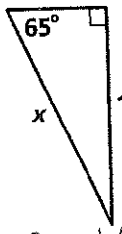
$x^2 = 51$

$x = \sqrt{51}$

7. 

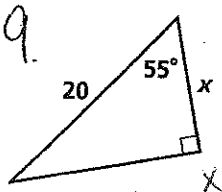
$\cos^{-1}\left(\frac{16}{20}\right) = x$

$x = 37°$

8. 

$\sin 65 = \frac{10}{x}$

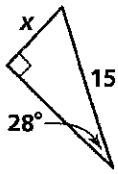
$x = \frac{10}{\sin 65}$

9. 

$\cos 55 = \frac{x}{20}$

$x = 20 \cdot \cos 55$

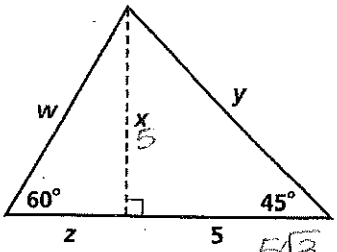
$x = 11.5$

10. 

$\sin 28 = \frac{x}{15}$

$x = 15 \cdot \sin 28$

$x = 7.0$

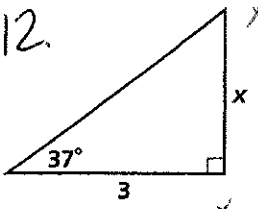
11. 

$x = 5$

$y = 5\sqrt{2}$

$z = \frac{5\sqrt{3}}{3}$

$w = \frac{10\sqrt{3}}{3}$

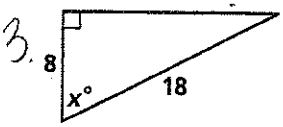
12. 

$x = 11.0$

$\tan 37 = \frac{x}{3}$

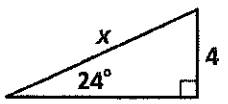
$x = 3 \cdot \tan 37$

$x = 2.3$

13. 

$\cos^{-1}\left(\frac{8}{18}\right) = x$

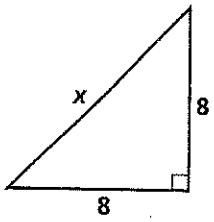
$x = 64°$

14. 

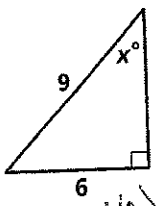
$\sin 24 = \frac{4}{x}$

$x = \frac{4}{\sin 24}$

$x = 9.8$

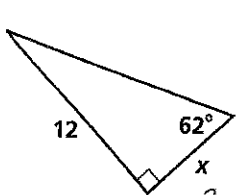
15. 

$x = 8\sqrt{2}$

16. 

$\sin^{-1}\left(\frac{6}{9}\right) = x$

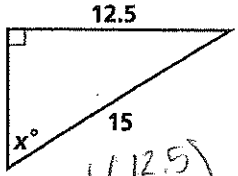
$x = 42°$

17. 

$\tan 62 = \frac{12}{x}$

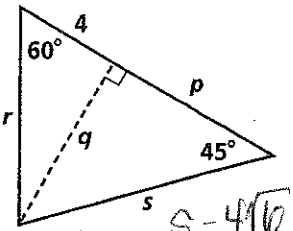
$x = \frac{12}{\tan 62}$

$x = 6.4$

18. 

$\sin^{-1}\left(\frac{12.5}{15}\right) = x$

$x = 56°$

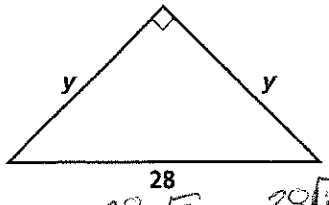
19. 

$s = 4\sqrt{6}$

$r = 0$

$Q = 4\sqrt{3}$

$p = 4\sqrt{3}$

20. 

$y = \frac{28}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{28\sqrt{2}}{2}$

$y = 14\sqrt{2}$

Converse of the Pythagorean Theorem Maze Answer Key **Name:** _____

Directions: Determine if the lengths shown create an acute, obtuse, or right triangle. Follow the correct directions to complete the maze correctly. You must show your work to receive full credit!