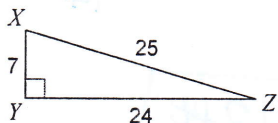


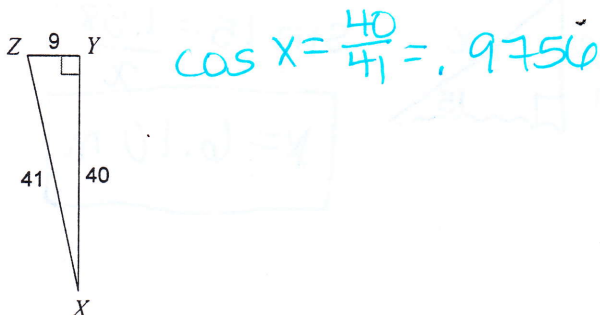
28.1--Sine & Cosine Ratio

Find the value of each trigonometric ratio. Express answers as a fraction and as a decimal rounded to four places.

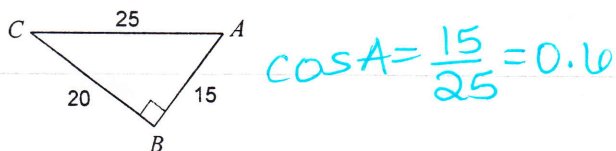
1) $\sin Z = \frac{7}{25} = .28$



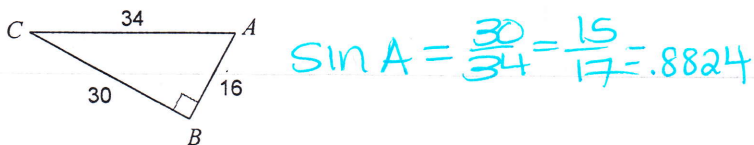
2) $\cos X$



3) $\cos A$

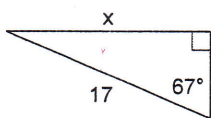


4) $\sin A$

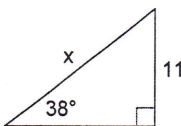


Find the missing side. Round to the nearest tenth.

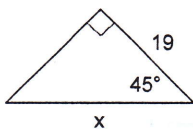
5) $\sin 67 = \frac{x}{17}$
 $x = 15.6$



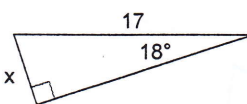
6) $\sin 38 = \frac{11}{x}$
 $x = 17.9$



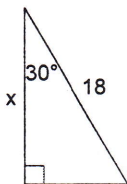
7) $\cos 45 = \frac{19}{x}$
 $x = 26.9$



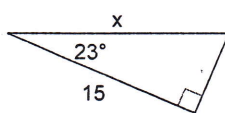
8) $\sin 18 = \frac{x}{17}$
 $x = 5.3$



9) $\cos 30 = \frac{x}{18}$
 $x = 15.6$

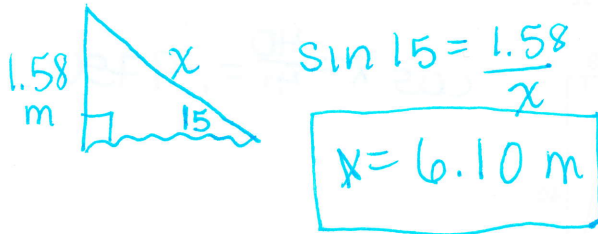


10) $\cos 23 = \frac{15}{x}$
 $x = 16.3$

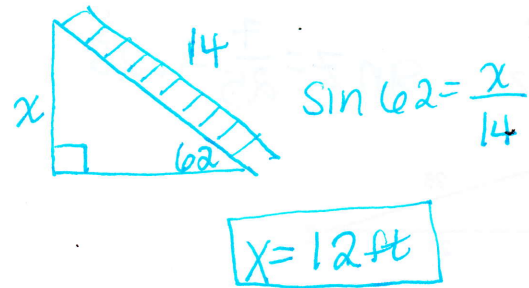


First draw a picture to model the situation. Then answer each question.

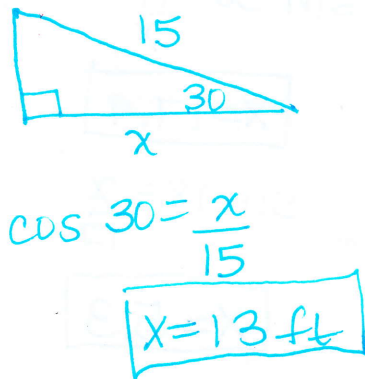
- 11) A jump ramp for water skiing makes an angle of 15° with the surface of the water. The ramp rises 1.58 meters above the surface. What is the length of the ramp to the nearest hundredth of a meter?



- 12) A 14 foot ladder makes a 62° angle with the ground. To the nearest foot, how far up the house does the ladder reach?



- 13) A skateboard ramp is 15 feet long and forms a 30° angle with the ground. Find the length of the base of the ramp. Round to the nearest foot.



- 14) You are 50 feet from the screen at a drive-in movie. Your eye is on a horizontal line with the bottom of the screen, and the angle of elevation to the top of the screen is 58° . How tall is the screen to the nearest foot?

