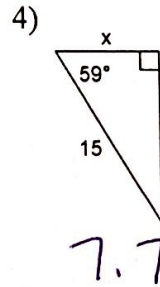
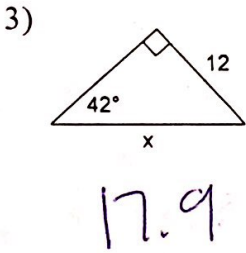
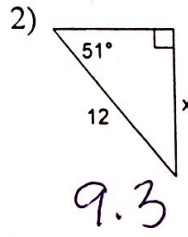
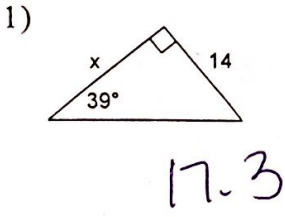
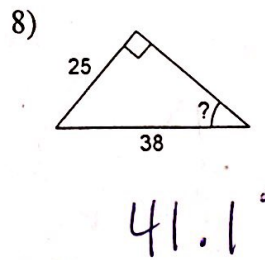
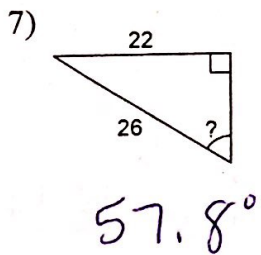
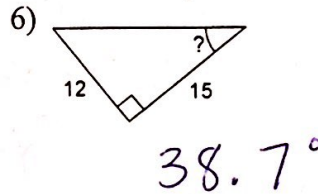
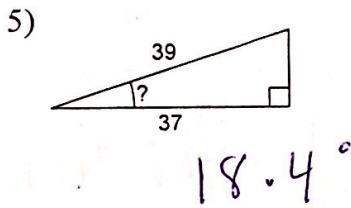


Trig Practice

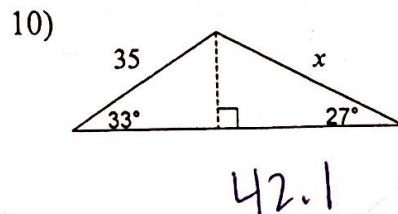
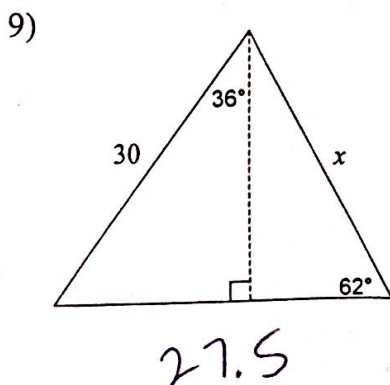
Find the missing side. Round to the nearest tenth.



Find the measure of the indicated angle to the nearest tenth of a degree.

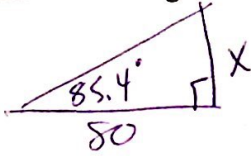


Find the length of the side labeled x. Round your final answer to the nearest tenth.



Set up & solve each problem. Sketch a diagram first.

11. From a point on level ground 80 feet from the base of the Eiffel Tower, the angle of elevation is 85.4° . Approximate the height of the Eiffel Tower to the nearest foot.



$$\tan 85.4 = \frac{x}{80}$$

$$x = 994.31 \text{ so } \boxed{994 \text{ ft}}$$

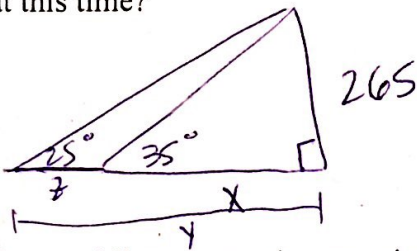
12. A guy wire is 13.8 yards long and is attached from the ground to a pole 6.7 yards above the ground. Find the angle, to the nearest tenth of a degree, that the wire makes with the ground.



$$\sin \theta = \frac{6.7}{13.8}$$

$$\boxed{\theta = 29.05^\circ}$$

13. From a height of 265 m above an ocean the pilot in a plane spots to ships sailing due east. The angle of depression to one of the ships measures 35° and to the other ship measures 25° . How far apart are the ships at this time?



$$\textcircled{1} \tan 35 = \frac{265}{x}$$

$$x = 378.459$$

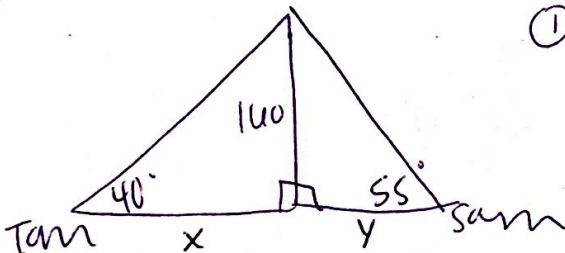
$$\textcircled{3} z = y - x$$

$$\boxed{z = 189.84 \text{ m apart}}$$

$$\textcircled{2} \tan 25 = \frac{265}{y}$$

$$y = 568.294$$

14. Tom and Sam are on the opposite sides of a tower of 160 meters height. They measure the angle of elevation of the top of the tower as 40° and 55° respectively. Find the distance between Tom and Sam.



$$\textcircled{1} \tan 55 = \frac{160}{y}$$

$$y = 112.03$$

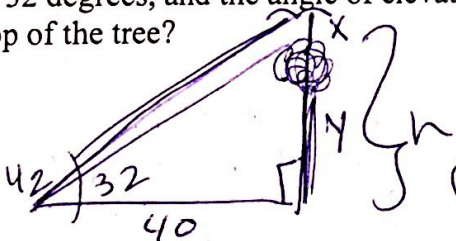
$$\textcircled{2} \tan 40 = \frac{160}{x}$$

$$x = 190.68$$

$$\textcircled{3} \text{distance} = x + y$$

$$\boxed{= 302.71 \text{ meter apart}}$$

15. A bird is flying above a tree. You are standing 40 feet away from the tree. The angle of elevation to the top of the tree is 32° , and the angle of elevation to the bird is 42° . What is the distance from the bird to the top of the tree?



$$\textcircled{1} \tan 32 = \frac{y}{40}$$

$$y = 24.995$$

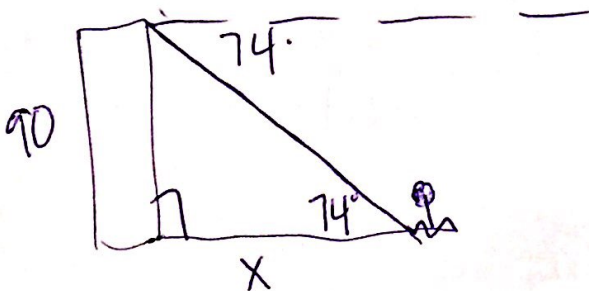
$$\textcircled{3} x = h - y$$

$$\boxed{= 11.02 \text{ ft}}$$

$$\textcircled{2} \tan 42 = \frac{h}{40}$$

$$h = 36.016$$

16. From the top of a tower, the angle of depression to a flower on the ground is 74° . The top of the tower is 90 feet above ground. How far is the flower from the foot of the tower?



$$\tan 74 = \frac{90}{x}$$

$$\boxed{x = 25.81 \text{ ft}}$$