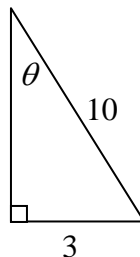
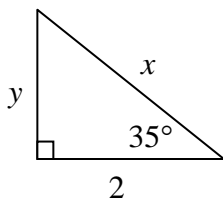


- Find the corresponding radian measure: (a) -240° (b) 420°
- Find the corresponding degree measure: (a) 3.4 (b) $-\frac{7\pi}{4}$
- Find the measure of a central angle θ in a circle of radius 5 ft. if the angle is subtended by an arc of length 7 ft.
- A circular arc of length 100 ft. subtends a central angle of 70° . Find the radius of the circle.

5. Find the values of the six trigonometric functions of θ .



6. Find the sides labeled x and y .



7. Find the values of the trig functions of θ given that $\cos\theta = \frac{8}{17}$ and $\sin\theta < 0$.

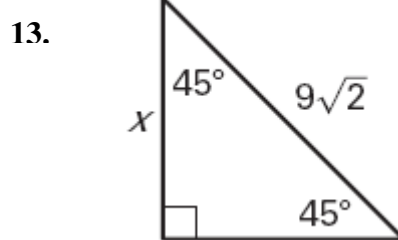
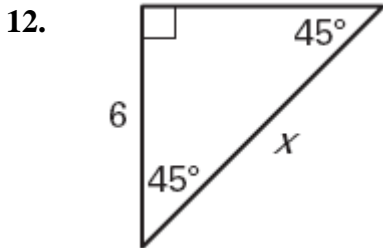
8. Find the reference angle for $\theta = \frac{3\pi}{5}$.

9. Find the 6 trig functions of the point $(-2, -3)$.

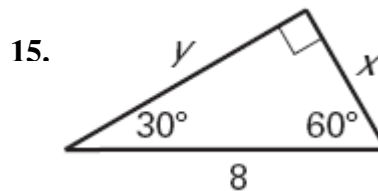
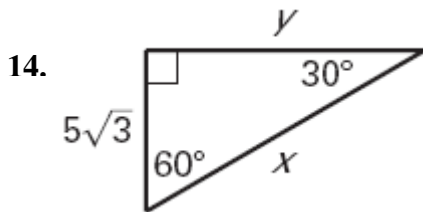
10. A helicopter is dropping water on a forest fire from a height of 300 ft. If one side of the fire makes an angle of depression of 40° , and the other side makes an angle of depression of 85° on the other side of the helicopter, how wide is the fire?

11. From the top of a 250 ft lighthouse, the angle of depression to a ship in the ocean is 18° . How far is the ship from the base of the lighthouse?

Find the value of x . Write your answer in simplest radical form.



Find the value of each variable. Write your answers in simplest radical form.



16. Find the following trigonometric ratios. Exact Answers.

$\sin A =$ _____

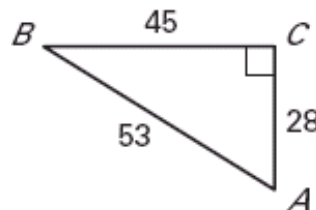
$\cot A =$ _____

$\cos A =$ _____

$\sec A =$ _____

$\tan A =$ _____

$\csc A =$ _____



17. Find a positive and a negative coterminal angle for each of the following:

a) -120°

b) $\frac{2\pi}{7}$

c) 405°

d) $\frac{17\pi}{24}$

18. Find the complement and supplement for each of the following:

a) 85°

b) $\frac{2\pi}{7}$

c) $\frac{11\pi}{16}$

d) 255°

19. Determine the Quadrant of the following angles:

a) $\frac{3\pi}{4}$

b) -315°

c) $\frac{25\pi}{24}$

d) $\frac{11\pi}{3}$

20. Label what trig functions are positive in each quadrant.

