

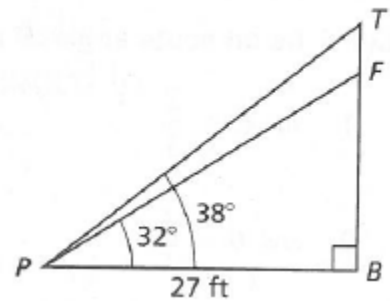
Algebra II  
Trigonometry Review

Name \_\_\_\_\_

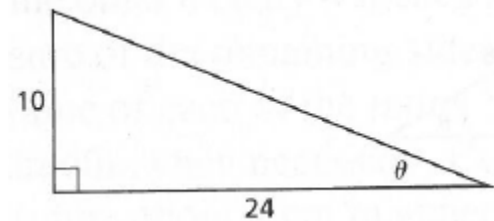
Solve the following triangles given the following.

1. Right triangle ABC, with right angle C, has side  $a = 12$  and Angle  $B = 63^\circ$ .
2. Right triangle ABC, with right angle A, has side  $b = 71$  and side  $a = 83$ .

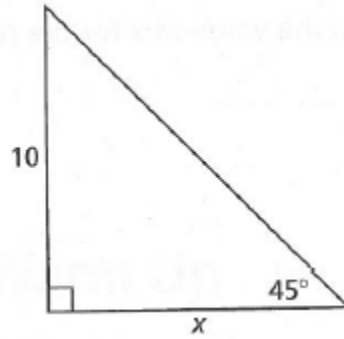
3. As shown in the diagram, a pole TF, is on the roof of a shed, FB. From a point P, on the ground 27 feet from the foot of the shed, the measure of the angle of elevation to the top of the pole, T, is  $38^\circ$ , and the measure of the angle of elevation to the foot of the pole, F, is  $32^\circ$ . Determine the height of the pole to the nearest tenth of a foot.



4. Find  $\sin(\theta)$ ,  $\cos(\theta)$  and  $\tan(\theta)$  for each of the following triangle.



5. Find the value of  $x$  for the following right triangle.



6. If  $\tan(\theta) = \frac{24}{7}$  and  $\theta$  is in Quadrant III, find  $\sin(\theta)$  and  $\cos(\theta)$

Convert each degree measure into radians and each radian measure into degrees.

7.  $200^\circ$

8.  $\frac{3\pi}{10}$

Find one positive angle and one negative angle that are coterminal with the given angle.

9.  $\frac{5\pi}{4}$

10.  $75^\circ$

Draw the following angles in standard position.

11.  $\frac{7\pi}{6}$

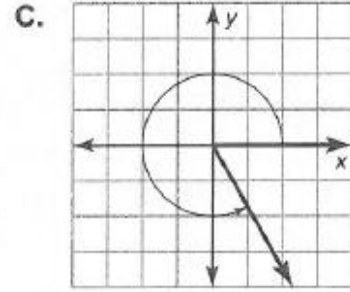
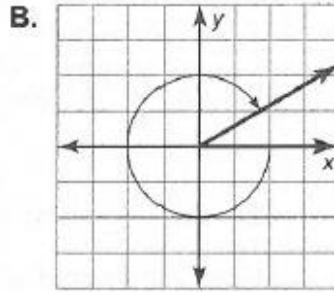
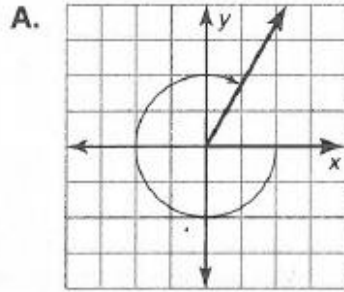
12.  $-200^\circ$

Match the following angle measure with the angle.

13.  $-300^\circ$

14.  $\frac{5\pi}{3}$

15.  $-\frac{11\pi}{6}$



With your calculator find the following to 4 decimal places.

17.  $\sin 40^\circ =$  \_\_\_\_\_

18.  $\cos -\frac{7\pi}{4} =$  \_\_\_\_\_

Evaluate the function without using a calculator.

19.  $\sin 45^\circ =$  \_\_\_\_\_

20.  $\cos 210^\circ =$  \_\_\_\_\_

21.  $\tan -240^\circ =$  \_\_\_\_\_

22.  $\sin \frac{\pi}{2} =$  \_\_\_\_\_

23.  $\cos -\frac{\pi}{2} =$  \_\_\_\_\_

24.  $\tan \pi =$  \_\_\_\_\_

25. Find  $\sin \theta$ ,  $\cos \theta$ , and  $\tan \theta$  if  $(20, -21)$  is on the terminal side of angle  $\theta$  in standard position. (Hint: Draw the angle in standard position)

Fill in the following table then graph each of the following.

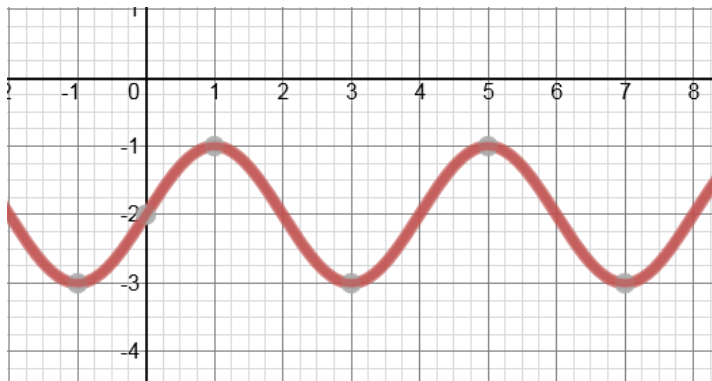
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26.  $f(x) = -3\sin(2x) - 1$

27.  $y = \cos(\pi x) + 3$

Find the equation of the following sinusoids.

28.



29.

