

# Evaluate Trigonometric Functions of Any Angle (13.1-13.3) Review

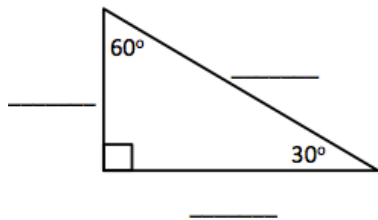
Advanced Algebra with Trigonometry, Glawe

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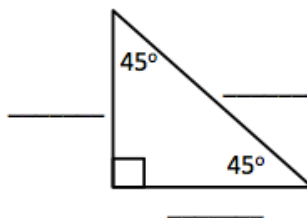
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Fill in the general missing sides of the special right triangles.

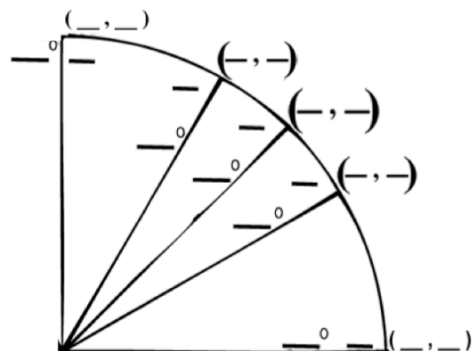
1)



2)



3) Fill in the all of the missing pieces of Quadrant I on the unit circle (the degree, radian, and point).



4) What does SOH-CAH-TOA stand for?

5) Fill in the blank:

a)  $\csc \theta = \frac{1}{\quad}$

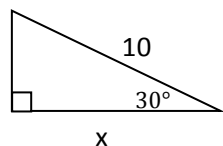
b)  $\cot \theta = \frac{1}{\quad}$

c)  $\sec \theta = \frac{1}{\quad}$

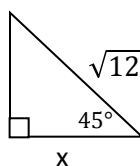
d)  $\tan \theta = \frac{\quad}{\quad}$

Find the value of x for the right triangle shown. **DO NOT USE A CALCULATOR, give exact solution.**

6)



7)



Evaluate the six trigonometric functions of  $\theta$ .

8)  $\theta = \frac{\pi}{6}$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9)  $\theta = -270^\circ$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

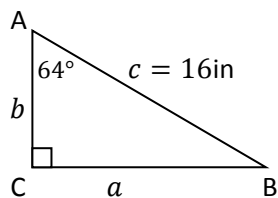
10) Find one positive and one negative angle that are coterminal with the angle  $\frac{13\pi}{6}$ .  
Solutions must be in radians.

\_\_\_\_\_  
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11) The sun casts a shadow of a man on the ground that is 5.45 feet long. The angle of elevation is  $50^\circ$ . What is the approximate height of the man?

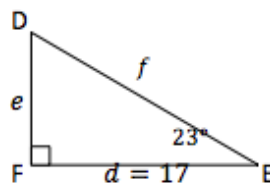
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12) Use a calculator to solve the right triangle ABC.  
Round to the nearest tenths place, if necessary.



$a =$  \_\_\_\_\_  $b =$  \_\_\_\_\_  $B =$  \_\_\_\_\_

13) Use a calculator to solve the right triangle DEF.  
Round to the nearest tenths place, if necessary.



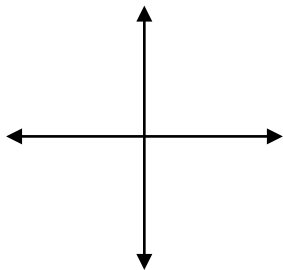
$e =$  \_\_\_\_\_  $f =$  \_\_\_\_\_  $D =$  \_\_\_\_\_

14) Let  $(-4, -3)$  be a point on the terminal side of an angle  $\theta$  in standard position. Evaluate  $\cot \theta$ .

15) Let  $(3, -7)$  be a point on the terminal side of an angle  $\theta$  in standard position. Evaluate  $\sin \theta$ .

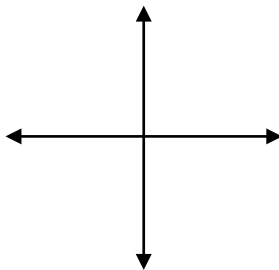
Sketch the right triangle using the reference angle, and evaluate the function.

16)  $\sin \frac{5\pi}{4}$



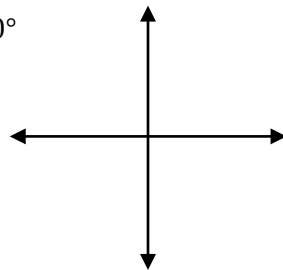
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17)  $\cos \frac{5\pi}{6}$



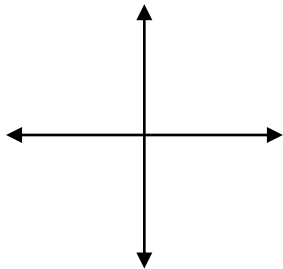
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18)  $\cos -240^\circ$



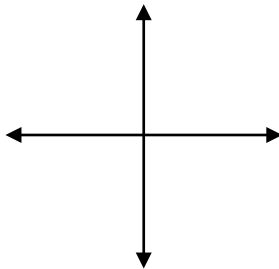
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19)  $\tan -\frac{11\pi}{6}$



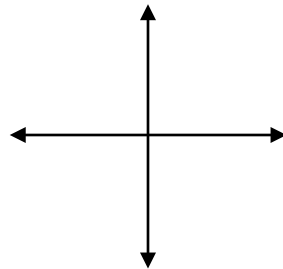
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20)  $\sin \frac{17\pi}{3}$



\_\_\_\_\_

21)  $\tan 450^\circ$



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