

Practice 7.3: Trig Functions & The Unit Circle

1. Find the point on the unit circle that corresponds to the angle.

a. $\frac{\pi}{4}$

b. $\frac{3\pi}{2}$

c. $-\frac{4\pi}{3}$

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

e. 30°

f. 135°

g. 300°

h. 210°

2. Find the sine, cosine and tangent of the angle.

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

b. 150°

c. $\frac{3\pi}{2}$

d. 330°

3. Find the value of all 6 trig functions for each angle.

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

b. -240°

4. Use the period to help evaluate the following trig functions.

a. $\sin 3\pi$

b. $\cos(405^\circ)$

c. $\tan \frac{25\pi}{6}$

d. $\csc(-600^\circ)$

Use the value of the given function to evaluate the remaining ones.

5. $\sin \theta = \frac{1}{3}$

a. $\sin -\theta$

b. $\csc \theta$

6. $\cos(-\theta) = \frac{2}{5}$

a. $\cos \theta$

b. $\sec \theta$

7. $\tan(\theta) = \frac{3}{4}$

a. $\tan -\theta$

b. $\cot \theta$

Use the value of the given function to evaluate the remaining ones.

8. $\sin \theta = \frac{2}{3}$

a. $\sin(\pi - \theta)$

b. $\sin(\pi + \theta)$

9. $\cos \theta = \frac{3}{7}$

a. $\cos(\pi - \theta)$

b. $\cos(\pi + \theta)$

10. Use a calculator to evaluate the trig functions.

a. $\sin \frac{\pi}{4}$

b. $\tan(180^\circ)$

c. $\cos(34.2^\circ)$

d. $\cot(1)$

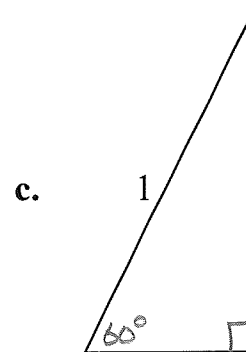
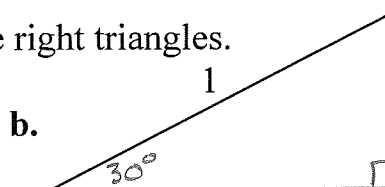
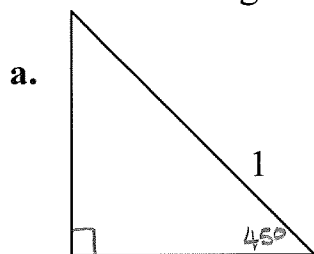
e. $\tan(110.5^\circ)$

f. $\sec(54.9^\circ)$

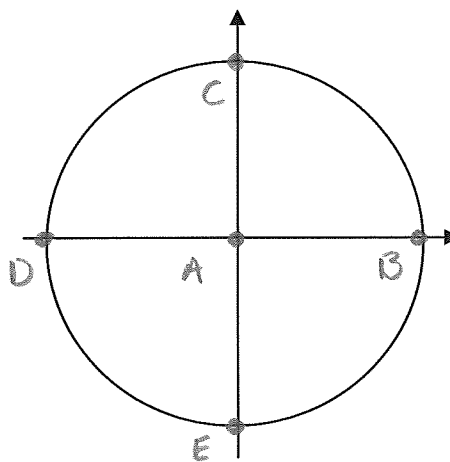
g. $\csc(0.8)$

h. $\sin(-\frac{5\pi}{3})$

11. Find the missing sides of the right triangles.



12. Find the points on the Unit Circle.



13. Find both the triangle and Unit Circle definition for all 6 trig functions.

a. $\sin \theta =$

b. $\csc \theta =$

c. $\cos \theta =$

d. $\sec \theta =$

e. $\tan \theta =$

f. $\cot \theta =$