

For each of the following, draw a diagram and show the approximate location for **ALL** angles that meet the criterion. Give exact angle measures or radians when appropriate.

1.  $\sin x = -\frac{1}{2}$

2.  $\cos \theta = \frac{\sqrt{2}}{2}$

3.  $\tan x = 1$

4.  $\cot \theta = -1$

5.  $\sin \theta = 0$

6.  $\cos \theta = -1$

7.  $\cos \theta = \frac{1}{2}$

8.  $\sin x = -\frac{\sqrt{3}}{2}$

9.  $\sec \theta = -\sqrt{2}$

10.  $\csc \theta = -2$

11.  $\cot x = -\sqrt{3}$

12.  $\cos \theta = 0$

Multiple Choice:

Find the value of the unique real number  $\theta$  between  $0^\circ$  and  $360^\circ$  that satisfies the two given conditions.

13.  $\sin \theta = -\frac{\sqrt{3}}{2}$  and  $\tan \theta > 0$ .

a.  $120^\circ$

b.  $210^\circ$

c.  $240^\circ$

d.  $300^\circ$

e.  $330^\circ$

Multiple Choice.

Find the value of the unique radian measure  $x$  between  $0\pi$  and  $2\pi$  that satisfies the two given conditions.

14.  $\sec x = \frac{2\sqrt{3}}{3}$  and  $\sin x < 0$ .

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

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

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

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

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