

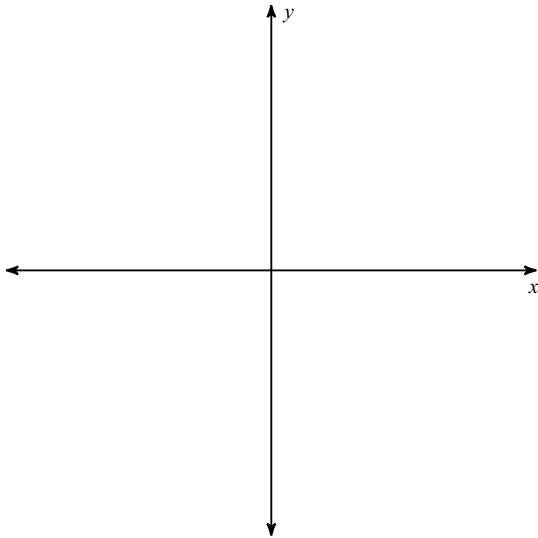
## Solving Trig Equations

Find both solutions to the following trig functions. Graph both solutions on the same graph.

1)  $\cos \theta = \frac{\sqrt{3}}{2}$

quadrant:

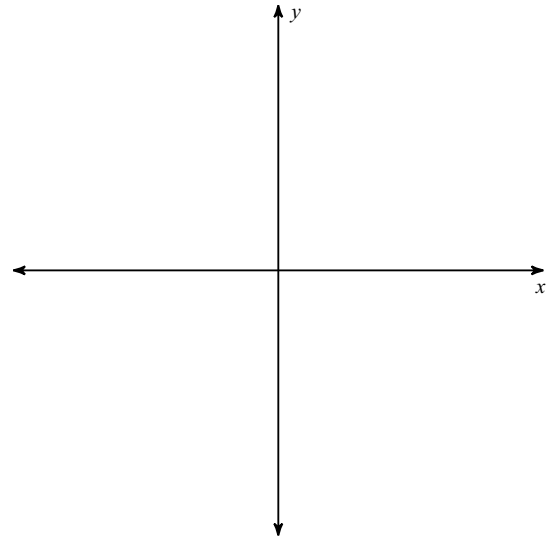
triangle type:

 $\theta =$ 

2)  $\sin \theta = \frac{1}{\sqrt{2}}$

quadrant:

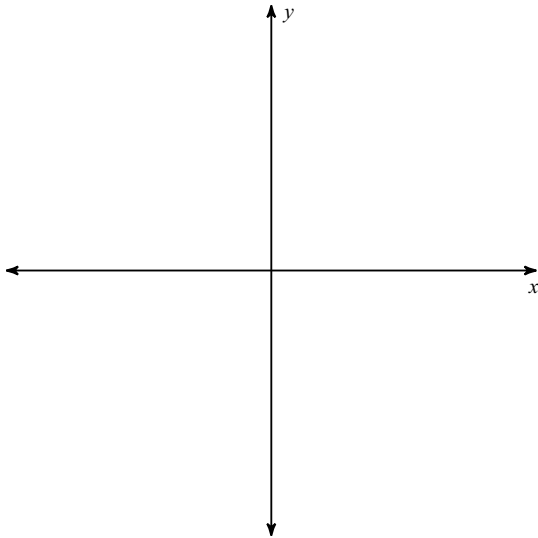
triangle type:

 $\theta =$ 

3)  $\tan \theta = \frac{1}{\sqrt{3}}$

quadrant:

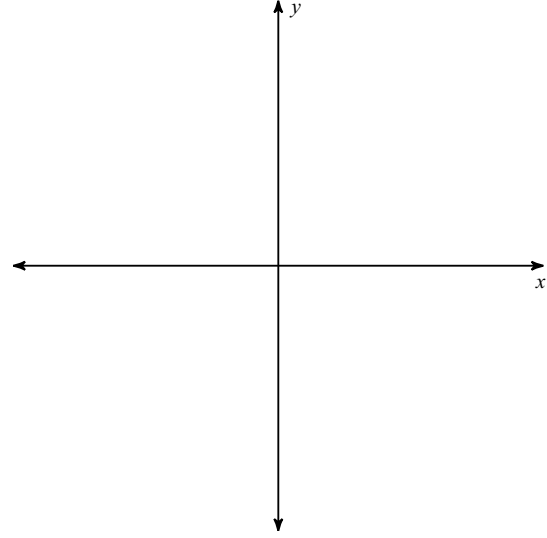
triangle type:

 $\theta =$ 

4)  $\cos \theta = -\frac{1}{2}$

quadrant:

triangle type:

 $\theta =$ 

## Answers to Solving Trig Equations

1) quadrant: I, IV  
triangle type: 30-60-90  
 $\theta = 30^\circ, 330^\circ$

2) quadrant: I, II  
triangle type: 45-45-90  
 $\theta = 45^\circ, 135^\circ$

3) quadrant: I, III  
triangle type: 30-60-90  
 $\theta = 30^\circ, 210^\circ$

4) quadrant: II, III  
triangle type: 30-60-90  
 $\theta = 120^\circ, 240^\circ$