

Name \_\_\_\_\_  
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Date \_\_\_\_\_  
Algebra II

## *The Unit Circle*

**Find the exact value of the coordinate on the unit circle for each of the following**

1.  $\theta = 30^\circ$

2.  $\theta = 60^\circ$

3.  $\theta = 45^\circ$

4.  $\theta = 135^\circ$

5.  $\theta = 300^\circ$

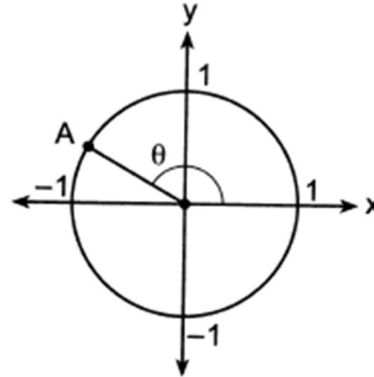
6.  $\theta = 210^\circ$

7.  $\theta = 330^\circ$

8.  $\theta = 225^\circ$

9.  $\theta = 120^\circ$

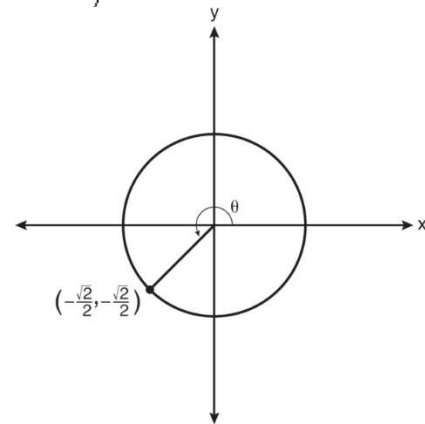
10. In the diagram of a unit circle below, point  $A$ ,  $\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$ , represents the point where the terminal side of  $\theta$  intersects the unit circle.



What is  $m\angle\theta$ ?

- 1)  $30^\circ$
- 2)  $120^\circ$
- 3)  $135^\circ$
- 4)  $150^\circ$

11. In the diagram below of a unit circle, the ordered pair  $\left(-\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$  represents the point where the terminal side of  $\theta$  intersects the unit circle.



What is  $m\angle\theta$ ?

- 1) 45
- 2) 135
- 3) 225
- 4) 240

12. In the diagram of a unit circle below, a point on the unit circle as coordinates  $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$ .

What is  $m\angle\theta$ ?

- 1)  $300^\circ$
- 2)  $315^\circ$
- 3)  $240^\circ$
- 4)  $330^\circ$

