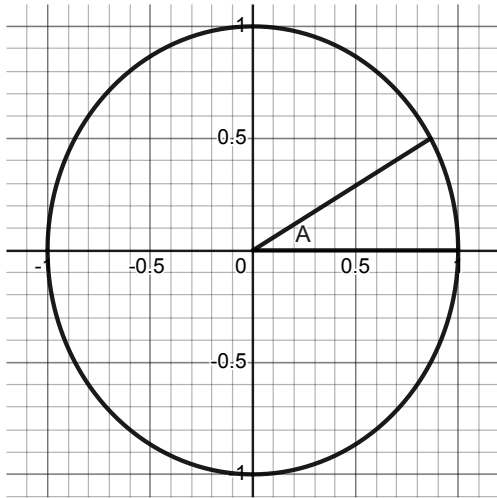# APPC Lesson 6.4 Homework

Name _____

1. Angle A is shown in standard position on a unit circle. Find the measure of angle A.

2. Evaluate.

    a. $\sin\left(\dfrac{4\pi}{3}\right)$

    b. $\cos\left(\dfrac{11\pi}{6}\right)$

    c. $\tan(5\pi)$

    d. $\sin\left(\dfrac{5\pi}{4}\right)$

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3. For which angle(s) between 0 and 2π is $\cos\theta = \dfrac{\sqrt{2}}{2}$?

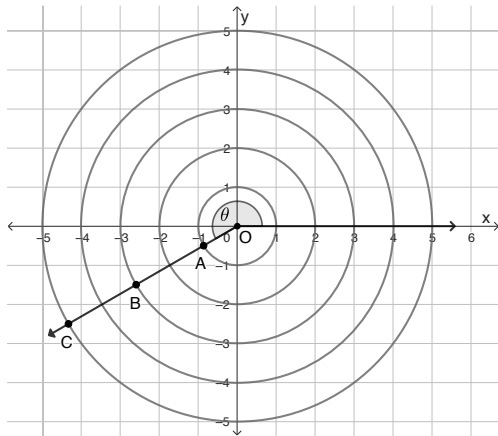4. Which of the following has a negative value?

A) $\tan\left(\dfrac{5\pi}{4}\right)$

B) $\sin\left(\dfrac{5\pi}{6}\right)$

C) $\cos\left(\dfrac{4\pi}{3}\right)$

D) $\cos\left(\dfrac{13\pi}{6}\right)$

5. An angle, θ , is shown in standard position, where $\theta = \dfrac{7\pi}{6}$. Find the exact coordinates of points A, B, and C.

6.   For $\dfrac{3\pi}{2} < \theta < \dfrac{5\pi}{3}$, determine if each statement is true or false.

a. $-\dfrac{\sqrt{3}}{2} < \sin\theta < -\dfrac{1}{2}$

b. $0 < \cos\theta < \dfrac{1}{2}$

c. $\tan\theta > 1$

7.   If θ is an angle in the second quadrant and $\sin\theta = \dfrac{\sqrt{2}}{2}$, find $\tan\theta$.

8.   Explain how to find the value of $\sin\left(\dfrac{28\pi}{3}\right)$ using the unit circle.

9. For $0 \le \theta \le 2\pi$ name all the measures of the angles on the unit circle where $\cos\theta = \pm\frac{1}{2}$. What do you notice about these angles?