Unit Circle Worksheet A

Name_____

Period_____

Solve the following problems using your Unit Circle.

1) $\sin(90°) = $ 1

2) $\cos\left(\dfrac{\pi}{4}\right) = $ $\dfrac{\sqrt{2}}{2}$

3) $\sin\left(\dfrac{5\pi}{4}\right) = $ $-\dfrac{\sqrt{2}}{2}$

4) $\cos\ 135° = $ $-\dfrac{\sqrt{2}}{2}$

5) $\tan\left(\dfrac{5\pi}{4}\right) = $ 1

6) $\tan(180°) = $ 0

7) $\sin\left(\dfrac{-\pi}{4}\right) = $ $-\dfrac{\sqrt{2}}{2}$

8) $\cos\ -90° = $ 0

Unit Circle Worksheet B

Name_____

Period_____

Solve the following problems using your Unit Circle.

1) $\sin(150°) =$ $\frac{1}{2}$

2) $\cos\left(\frac{7\pi}{6}\right) =$ $-\frac{\sqrt{3}}{2}$

3) $\sin\left(\frac{5\pi}{6}\right) =$ $\frac{1}{2}$

4) $\cos -135° =$ $-\frac{\sqrt{2}}{2}$

5) $\tan\left(\frac{9\pi}{6}\right) =$ $undefined$

6) $\tan(135°) =$ -1

7) $\sin\left(\frac{-\pi}{3}\right) =$ $-\frac{\sqrt{3}}{2}$

8) $\cos -120° =$ $-\frac{1}{2}$

Unit Circle Worksheet C

Name_____

Period_____

The given point P is located on the Unit Circle. State the quadrant and find the angle θ, also $\sin\theta$, $\cos\theta$ and $\tan\theta$.

1) $P\left(-\dfrac{1}{2}, \dfrac{\sqrt{3}}{2}\right)$

Quad: 2nd

$\sin\theta$: $\dfrac{\sqrt{3}}{2}$

$\cos\theta$: $-\dfrac{1}{2}$

$\tan\theta$: $-\sqrt{3}$

2) $P(0, -1)$

Quad: None

$\sin\theta$: -1

$\cos\theta$: 0

$\tan\theta$: undefined

3) $P\left(\dfrac{-\sqrt{2}}{2}, \dfrac{-\sqrt{2}}{2}\right)$

Quad: 3rd

$\sin\theta$: $-\dfrac{\sqrt{2}}{\sqrt{2}}$

$\cos\theta$: $-\dfrac{\sqrt{a}}{2}$

$\tan\theta$: 1

Find the exact value of each function.

4) $\cos\left(\dfrac{7\pi}{4}\right)$ $\dfrac{\sqrt{2}}{2}$

5) $\sin -30°$ $-\dfrac{1}{2}$

6) $\sin\left(-\dfrac{2\pi}{3}\right) = -\dfrac{\sqrt{3}}{2}$

7) $\cos(600°)$ $-\dfrac{1}{2}$

8) $\sin\left(\dfrac{9\pi}{2}\right)$ 1

9) $\tan(7\pi)$ 0

10) $\cos\left(-\dfrac{11\pi}{4}\right)$ $-\dfrac{\sqrt{2}}{2}$

11) $\sin -225°$ $\dfrac{-\sqrt{3}}{2}$

12) $\tan(585°)$ 1

13) $\cos(1440°)$ 1

14) $\sin\left(-\dfrac{13\pi}{4}\right)$ $-\dfrac{\sqrt{2}}{2}$

15) $\cos\left(\dfrac{23\pi}{6}\right) = \dfrac{\sqrt{3}}{2}$