Algebra 2 Bellwork Friday, March 6, 2015

Use the Unit Circle to find the EXACT value of each.

$\cos\theta$ =x-coordinate $\sin\theta$ =y-coordinate $\tan\theta = \frac{\text{y-coord}}{\text{x-coord}}$

1. Sin240°
2. Cos150°
3. Tan180°
4. Sin $\frac{5\pi}{3}$
5. Cos $\frac{11\pi}{6}$
6. Tan $\frac{5\pi}{6}$
7. Sin135°
8. Cos $\frac{5\pi}{4}$
9. Tan $\frac{7\pi}{4}$

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ANSWERS

Use the Unit Circle to find the EXACT value of each.

$\cos\theta$ =x-coordinate $\sin\theta$ =y-coordinate $\tan\theta = \frac{\text{y-coord}}{\text{x-coord}}$

1. Sin240° $-\frac{\sqrt{3}}{2}$
2. Cos150° $-\frac{\sqrt{3}}{2}$
3. Tan180° 0
4. Sin $\frac{5\pi}{3}$ $-\frac{\sqrt{3}}{2}$
5. Cos $\frac{11\pi}{6}$ $\frac{\sqrt{3}}{2}$
6. Tan $\frac{5\pi}{6}$ $-\frac{\sqrt{3}}{3}$

$$\frac{\frac{1}{2}}{-\frac{\sqrt{3}}{2}} = \frac{1}{2}\cdot\frac{-2}{\sqrt{3}} = -\frac{1}{\sqrt{3}}\cdot\frac{\sqrt{3}}{\sqrt{3}}$$

7. Sin135° $\frac{\sqrt{2}}{2}$
8. Cos $\frac{5\pi}{4}$ $-\frac{\sqrt{2}}{2}$
9. Tan $\frac{7\pi}{4}$ -1