Quiz 2
Due: 10 September 2024

Name: _____

1. Demonstrate how to use the unit circle and coterminal angles to calculate

$$\sin\left(-840^\circ\right) \cdot \tan\left(\frac{17\pi}{6}\right) + \cot\left(-\frac{3\pi}{4}\right) \cdot \cos\left(\frac{\pi}{3}\right)$$

by hand.

2. Show how to determine which is bigger: $\tan(\cos(\frac{\pi}{2}))$ or $\cos(\sin(\pi))$?

3. Suppose that $\tan(\theta) = \sqrt{3}/3$. Give at least three different possibilities for the angle θ.

$$\left(\text{Hint: recall that } \frac{\sqrt{3}}{3} = \frac{1}{\sqrt{3}} = \frac{1/2}{\sqrt{3}/2}.\right)$$

4. Suppose that $\cos(\theta) = \frac{5}{13}$ and $\sin(\theta) = -\frac{12}{13}$. Show how to compute $5 \cdot \tan(-\theta)$.