Quiz 3
Due: 17 September 2024

Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

1. Suppose θ is an acute angle with $\cos(\theta) = \frac{1}{3}$. Use this to compute $\cot(\frac{\pi}{2} - \theta)$.

2. Suppose θ is an obtuse angle with $\cot(\theta) = -\frac{12}{5}$. Use this to compute $\sin(\theta)$.

3. You want to install a zipline from the top of the Century Tower to the ground at a 30° angle of depression. The Tower is 157 feet tall.

   a.) How far away from the base of the tower will you land?

   b.) How much cable will you need?

(Give **exact** answers—no decimals.)

4. Find the **exact** value of x below. (Figure not to scale.)