

Name: _____

Date: Oct 3

Math 1

Quiz 2

Instructions: This quiz is closed book. You may not use notes, computing devices (calculators, computers, cell phones, etc.) or any other external resource. However, you may ask the instructor for clarification on problems. Please present your work neatly and clearly, **justify** your answers completely, and **box your answers**, when appropriate.

Problem 1. Use graph of $f(x) = |x|$ to graph the transformed function $g(x) = |x + 1| + 2$. Mark the x - and y -intercepts of the graph.

Problem 2. Find slopes of secant lines through $(-1, -1)$ and each of the following points on the graph of $f(x) = -x^2$

(1) $(-2, -4)$

(2) $(-\frac{3}{2}, -\frac{9}{4})$

Problem 3. For

$$2 \sin \left(x - \frac{\pi}{3} \right)$$

find

a. the amplitude

b. the horizontal shift with direction

Problem 4. Verify

$$\frac{\tan \theta \cot \theta}{\csc \theta} = \sin \theta$$