

Quiz #1, 8/30
Math 156 (Calculus I), Fall 2022

Problem 1 is worth 5 points, and problem 2 is worth 5 points, for a total of 10 points. Remember to *show your work* on all problems!

1. In this problem, let $f(x) = \sqrt{x+1}$.
 - (a) Sketch the graph of $y = f(x)$.
 - (b) State the domain and range of $f(x)$.
 - (c) Let $g(x)$ be the function whose graph is obtained from the graph of $f(x)$ by reflecting across the x -axis. Give a formula for $g(x)$.

2. In this problem, let $f(x) = 2\cos(x)$.
 - (a) Sketch the graph of $y = f(x)$.
 - (b) State the domain and range of $f(x)$.
 - (c) Is $f(x)$ an even function, odd function, both, or neither? Explain what this means both algebraically (in terms of formulas) and geometrically (in terms of graphs).