Homework 3, Graded Problems.

Let \( f(x) = x^{1/3} \)

1. Graph \( f \) on the domain \(-1 \leq x \leq 1\). (Your calculator might lie to you.)

2. Compute secant slopes for \( f \) on the intervals
   
   (a) \([-0.5, 0]\)
   
   (b) \([-0.1, 0]\)
   
   (c) \([0, 0.1]\)
   
   (d) \([0, 0.5]\)

3. Sketch each secant line in your graph from Problem 1.

4. Compute

\[
\lim_{x \to 0} \frac{f(x) - f(0)}{x - 0}
\]