1. Evaluate each of the following.
   a) \( \lim_{x \to 0} \frac{\sin x - x}{x^3} \)
   b) \( \lim_{x \to 0} \frac{\sin(3x)}{\cos(4x)} \)
   c) \( \lim_{x \to \infty} \frac{e^x}{x^3} \)

2. Use local linearization to estimate \( \sqrt{9.5} \). Leave your answer as a simplified fraction.

3. Let \( f(x) = 2x^3 - 6x^4 \) on the interval \([-2, 2]\).
   a) Find the x- and y-coordinate(s) of all local extrema and classify each as a max or min.
   b) Find the x- and y-coordinate(s) of all global extrema and classify each as a max or min.
   c) Find the x-coordinate(s) of all inflection points and classify each as a max or min.
   d) Sketch \( f(x) \), labeling the coordinates of all the points you found in (a), (b), and (c) above.