1. Use the difference quotient formula

\[ f'(x) = \lim_{h \to 0} \frac{f(x + h) - f(x)}{h} \]

to find the derivative of \( f(x) = \sqrt{x} \).

2. For \( f(x) = x^2 \), show that the left, right, and central difference quotients all yield the same result for \( f'(x) \).

3. Sketch the derivatives:

   a. 
   b. 

Assignment  Due 10/9