

1. (2 points) Write the limit definition for $f'(x)$.

For the following problems, let $f(x) = x^2 - 5x + 1$.

2. (4 points) Find $f'(4)$ using the limit definition of the derivative.

3. (4 points) Find the equation of the line tangent to the graph of $f(x)$ at the point $(4, -3)$.