

2. (8 points) (a) Give the statement of the fundamental theorem of calculus.

(b) Give a specific instance of the fundamental theorem by using the interval $-2 \leq x \leq 3$ and the function x^2 for one of the functions in your statement of the theorem.

3. (4 points) Suppose $f'(x) = \cos(x^2)$. Use the graph of $f'(x)$ to decide which is larger, $f(1)$ or $f(2)$. Explain the reason for your answer.