

Name _____ Score _____ Teacher _____ Date _____

For each function on $[a, b]$, find every c in (a, b) such that $f'(c) = (f(b) - f(a))/(b - a)$. Show the endpoint values, secant slope, and derivative equation.

$$[a, b] = [-5 \quad , \quad -1 \quad]$$
$$[a, b] = [1, 5]$$

Math Sheet

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Mean Value Theorem

For each function on $[a, b]$, find every c in (a, b) such that $f'(c) = (f(b) - f(a))/(b - a)$. Show the endpoint values, secant slope, and derivative equation.

5. Find every c in (a, b) with $f'(c)$ equal to the secant slope.

$$f(x) = -2 \cdot x^2 + 8 \cdot x^1 - 10$$

$$[a, b] = [1, 5]$$

6. Find every c in (a, b) with $f'(c)$ equal to the secant slope.

$$f(x) = x^3 - 6 \cdot x^2 + 12 \cdot x^1 - 11$$

$$[a, b] = [-6, 2]$$

7. Find every c in (a, b) with $f'(c)$ equal to the secant slope.

$$f(x) = -2 \cdot x^2 + 8 \cdot x^1 - 6$$

$$[a, b] = [-6, 2]$$

8. Find every c in (a, b) with $f'(c)$ equal to the secant slope.

$$f(x) = x^3 - 3 \cdot x^2 + 4 \cdot x^1 + 2$$

$$[a, b] = [-2, 6]$$
