



Calculus 1 Workbook

Definition of the derivative

DEFINITION OF THE DERIVATIVE

■ 1. Use the definition of the derivative to find the derivative of $f(x) = 2x^2 + 2x - 12$ at $(4, 28)$.

■ 2. Use the definition of the derivative to find the derivative of $g(x) = 3x^3 - 4x + 7$ at $(-2, -9)$.

■ 3. Use the definition of the derivative to find the derivative at $(-1, -1)$.

$$f(x) = \frac{x}{x+2}$$

■ 4. Use the definition of the derivative to find the derivative of $f(x) = \sqrt{5x-4}$ at $x = 4$.

■ 5. Use the definition of the derivative to find the derivative of $g(x) = \cos(x-1)$ at $x = \pi/2$.

■ 6. Use the definition of the derivative to find the derivative of $g(x) = |x|$ at $x = 0$.



