

$$f(x) = -3x + 2$$

$$f'(x) = -3$$

$$f(x) = x^7 - 5x^4$$

$$f'(x) = 7x^6 - 20x^3$$

$$f(x) = (5x - 2)^2$$

$$f'(x) = 10(5x - 2)$$

$$f(x) = 3 \cdot \frac{x - 1}{4}$$

$$f'(x) = \frac{3}{4}$$

$$f(x) = \sqrt{2}$$

$$f'(x) = 0$$

$$f(x) = x\sqrt{x}$$

$$f'(x) = \frac{3}{2}\sqrt{x}$$

$$f(x) = -(1-x^2)^2$$

$$f'(x) = 4x(1-x^2)$$

$$f(x) = (2x-1)^5$$

$$f'(x) = 10(2x-1)^4$$

$$f(x) = \left(\frac{x+1}{x-2}\right)^3$$

$$f'(x) = \frac{-9(x+1)^2}{(x-2)^4}$$

$$f(x) = \sqrt[3]{4x + 1}$$

$$f'(x) = \frac{4}{3}(4x + 1)^{-2/3}$$

$$f(x) = 5 \cdot \sin(2x + 1)$$

$$f'(x) = 10 \cos(2x + 1)$$

$$f(x) = \sin(x) \cdot \cos(x)$$

$$f'(x) = \cos^2(x) - \sin^2(x)$$

$$f(x) = z \cos(x^2 + y)$$

$$f'(x) = -2xz \sin(x^2 + y)$$

$$f(x) = \sin^4(5 - 4x)$$

$$f'(x) = -16 \sin^3(5 - 4x) \cdot \cos(5 - 4x)$$

$$f(x) = \cos^3(x^2)$$

$$f'(x) = -6 \cos^2(x^2) \cdot \sin(x^2) \cdot 2x$$

$$f(x) = \sin\left(\left(3 - x^3\right)^7\right)$$

$$f'(x) = -21x^2 \cos\left(\left(3 - x^3\right)^7\right) \cdot \left(3 - x^3\right)^6$$

$$f(x) = \sin(\sqrt{5 - 8x})$$

$$f'(x) = \frac{-4 \cos(\sqrt{5 - 8x})}{\sqrt{5 - 8x}}$$

$$f(x) = \tan\left(\frac{1}{(2 - x)^2}\right)$$

$$f'(x) = \frac{2}{\cos^2\left(\frac{1}{(2 - x)^2}\right)} \cdot \frac{2}{(2 - x)^3}$$

$$f(x) = \frac{(-5x + 2)^6}{3x}$$

$$f'(x) = \frac{-(-5x + 2)^5 (30x + 1)}{3x^2}$$

$$f(x) = \sqrt{1 - x}$$

$$f'(x) = \frac{-1}{2\sqrt{1-x}}$$

$$f(x) = (x^2 + 3)^{\frac{3}{2}}$$

$$f'(x) = 3x\sqrt{x^2 + 3}$$

$$(f(g(x)))'$$

$$f'(g(x)) \cdot g'(x)$$





