

Take the derivative with respect to x of the following functions

$$y = x^2$$

$$y = 3x^2 + x - 2$$

$$y = \frac{3}{2}x^2 - 2x + 287$$

$$y = 3x^{\frac{2}{3}} + x$$

$$y = x(x + 1)$$

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

$$y = 3(x - 1)^2 + 6x - 3$$

$$y = \frac{x^3 + x}{2x}$$

$$y = 2x^{\frac{3}{2}} + x(x^{\frac{1}{2}} + 1)$$

$$y = (x^{\frac{1}{2}} + 1)^2 - x$$

$$y = x^{\frac{3}{2}}(x^{\frac{5}{3}} + \sqrt{x}) + 1$$

$$y = \frac{3x^2(x^{\frac{5}{2}} + \sqrt{x^3}) + 1}{4x}$$

$$y = 3x^2 + \frac{1}{x}$$

$$y = \frac{3x + 1}{4x^{\frac{3}{2}}}$$

$$y = x^2 + \frac{2x^{\frac{2}{3}} + x + 1}{x^3} + 1$$

$$y = 2\left(\sqrt{x}\right)\left(x^{\frac{3}{4}}\right) + 1$$

$$y(x) = ax^2 + bx + c$$

$$y(x) = a(x - b)^2 - \sqrt{cx}$$

$$y(x) = \frac{a(x^2 - bx)}{bc} + \frac{d}{\sqrt{x}}$$