

To *differentiate* a function is to find its derivative. The derivative is the rate of change of a function with respect to one of its variables.

This is equivalent to finding the equation for the gradient of a function's graph.

If  $y = f(x)$  is a function of  $x$ , the derivative is often written as  $\frac{dy}{dx}$  or as  $f'(x)$ .