

3. Prove your conjecture *algebraically for all x* by using the following limit definition of the derivative:

$$f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

4. Class Discussion: Use $\frac{dy}{dx}$ notation and the $\frac{d}{dx}$ notation to express your conjecture from Q2.

Class Discussion: What Have We Learned/Recalled in this Activity?

Skills/Facts:

Methods:

Concepts to Understand: