

3.1 Derivative as a function

use calc program derivative

Drag point X. What do you notice about point P?

derivative:

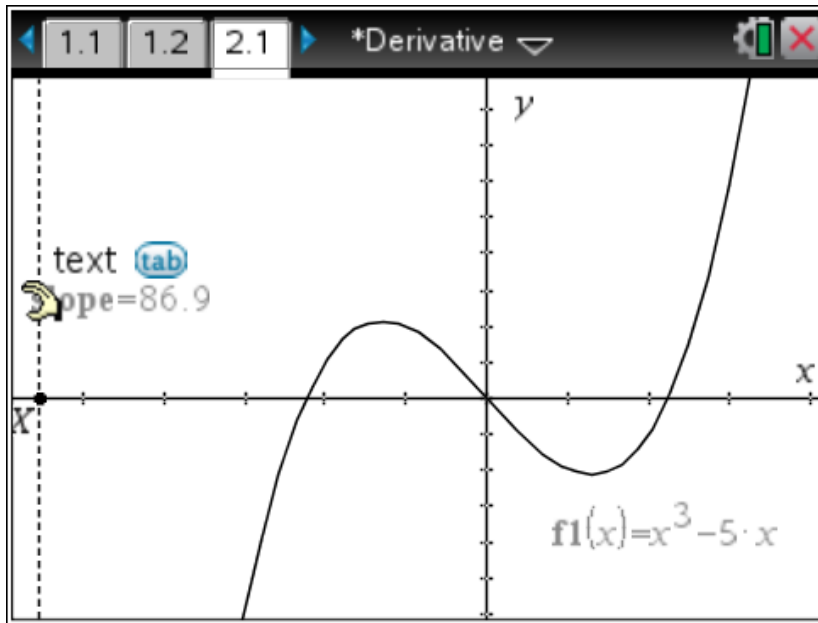
Sep 10-7:14 AM

derivative by definition:

$$f(x) = x^2 + 2$$

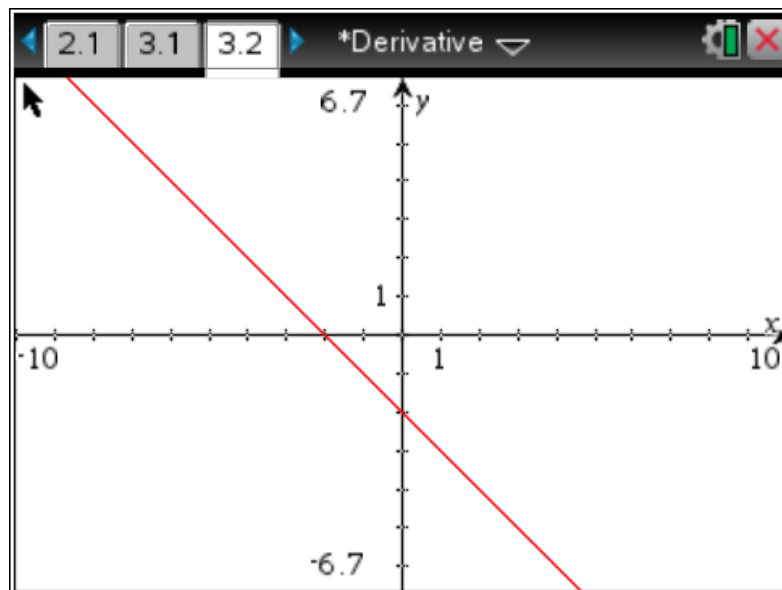
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sketch the derivative (slope function)



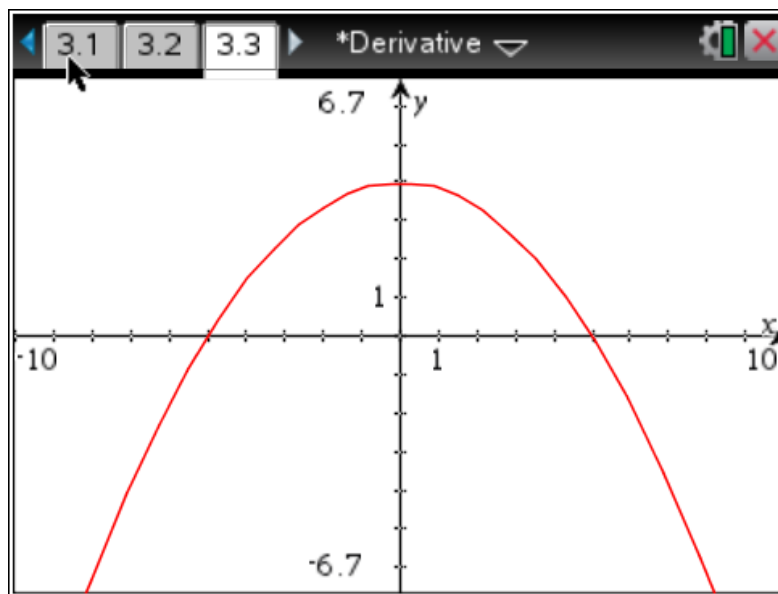
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given the graph of the derivative, sketch a possible graph of $f(x)$



Aug 30-9:58 AM

given the graph of the derivative, sketch a possible graph of $f(x)$



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derivative notation:

$$y = x^2 + 2$$

$$f(x) = x^2 + 2$$

$$y' = 2x$$

$$f'(x) = 2x$$

$$\frac{dy}{dx} = 2x$$

$$\frac{d}{dx}(x^2 + 2) = 2x$$

Sep 10-7:16 AM