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Practice quiz onTangent Lines to Functions

TOTAL DES POINTS 2

1. Suppose that $f : \mathbb{R} \to \mathbb{R}$ is a function. Which of the following expressions corresponds to $f'(2)$, the slope of the tangent line to the graph of $f(x)$ at $x = 2$? **1 / 1 point**

- $f'(2) = \lim_{h \to 0} \frac{f(a+h)-f(a)}{h}$
- $f'(2) = mx + b$
- $f'(2) = \lim_{h \to 0} \frac{f(2+h)-f(2)}{h}$ (selected)
- $f'(2) = 2$

Correct
This expression can be obtained from the first screen of our video by plugging in 2 for a.

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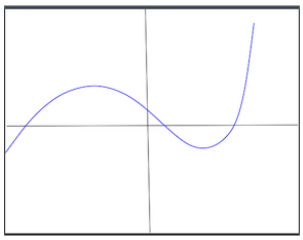
2. Suppose that $h : \mathbb{R} \to \mathbb{R}$ is a function whose graph is shown as the blue curve in the figure. For how many values of a is $h'(a) = 0$? **1 / 1 point**



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- 3
- Never
- Always
- 2 (selected)

Correct
$h'(a)$ gives the slope of the tangent line to the graph of h at the point $x = a$.

When $h'(a) = 0$, this means that the tangent line is horizontal.

There are two places (one on each side of the y-axis) where this tangent line is horizontal, so this answer is correct.