

Practice quiz onTangent Lines to Functions

PUNTOS TOTALES DE 2

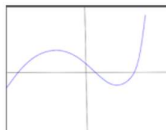
1. Suppose that $f : \mathbb{R} \rightarrow \mathbb{R}$ is a function. Which of the following expressions corresponds to $f'(2)$, the slope of the tangent line to the graph of $f(x)$ at $x = 2$? 1 / 1 puntos

- ☐ $f'(2) = 2$
- ☐ $f'(2) = mx + b$
- ☒ $f'(2) = \lim_{h \rightarrow 0} \frac{f(2+h) - f(2)}{h}$
- ☐ $f'(2) = \lim_{h \rightarrow 0} \frac{f(a+h) - f(a)}{h}$

✓ Correcto

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

2. Suppose that $h : \mathbb{R} \rightarrow \mathbb{R}$ 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 puntos



- ☐ 3
- ☐ Never
- ☐ Always
- ☒ 2

✓ Correcto

$h'(a)$ 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 curve has a horizontal tangent line.