

Name : _____

Score : _____

Teacher : _____

Date : _____

Evaluate Slope at a Point

Find the slope of the function at the given value. Round to the nearest ten-thousandth.

1) $y = 2^{(x+2)}$, at $x = 3$

2) $y = x^3 - 9x^2 + 20x$, at $x = -5$

3) $y = \cos(x^2 + 3x)$, at $x = \frac{3\pi}{2}$

4) $y = 4^{(x+3)}$, at $x = 1$

5) $y = x + 1$, at $x = 6$

6) $y = \frac{x}{x^3 - 5x^2 + 4x}$, at $x = 7$

7) $y = 2^{(x+5)}$, at $x = 0$

8) $y = \sin(x^2 - 6x + 9)$, at $x = \frac{-\pi}{2}$

9) $y = \frac{x-1}{x^3 + 8x^2 + 17x + 10}$, at $x = 3$

10) $y = \cos(x^2 + 2x)$, at $x = -\pi$



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Find the slope of the function at the given value. Round to the nearest ten-thousandth.

1) $y = 2^{(x+2)}$, at $x = 3$

slope = 22.1807

2) $y = x^3 - 9x^2 + 20x$, at $x = -5$

slope = 185

3) $y = \cos(x^2 + 3x)$, at $x = \frac{3\pi}{2}$

slope = 12.1375

4) $y = 4^{(x+3)}$, at $x = 1$

slope = 354.8914

5) $y = x + 1$, at $x = 6$

slope = 1

6) $y = \frac{x}{x^3 - 5x^2 + 4x}$, at $x = 7$

slope = -0.0278

7) $y = 2^{(x+5)}$, at $x = 0$

slope = 22.1807

8) $y = \sin(x^2 - 6x + 9)$, at $x = \frac{-\pi}{2}$

slope = 4.155

9) $y = \frac{x-1}{x^3 + 8x^2 + 17x + 10}$, at $x = 3$

slope = -0.0009

10) $y = \cos(x^2 + 2x)$, at $x = -\pi$

slope = -1.8431

