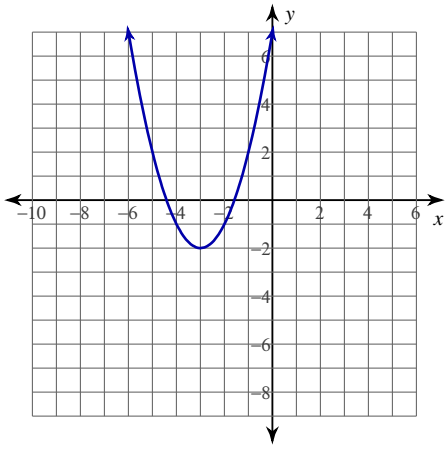
Candle Center - Infinite Calculus Name_____

Slope at a Value

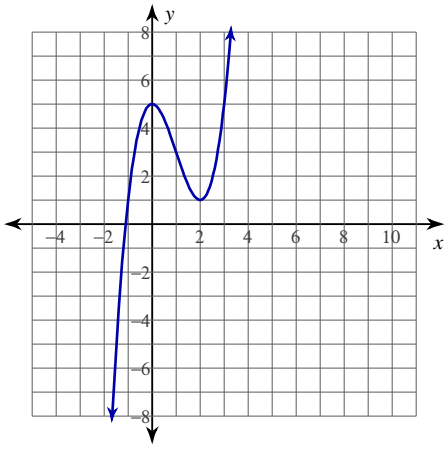
Date_____ Period____

For each problem, find the slope of the function at the given value.

1) $y = x^2 + 6x + 7$ at $x = -2$



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



3) $y = x^3 - 6x^2 + 9x - 4$ at $x = 2$

4) $y = -x^3 - 6x^2 - 9x + 1$ at $x = -4$

5) $y = -\dfrac{1}{x^2 - 9}$ at $x = 2$

6) $y = -\dfrac{3}{x + 5}$ at $x = 1$

7) $y = -(x + 2)^{\frac{1}{3}}$ at $x = -1$

8) $y = -(-x + 2)^{\frac{1}{2}}$ at $x = -5$

9) $y = -\ln(-x + 2)$ at $x = -3$

10) $y = \sin(2x)$ at $x = -\pi$

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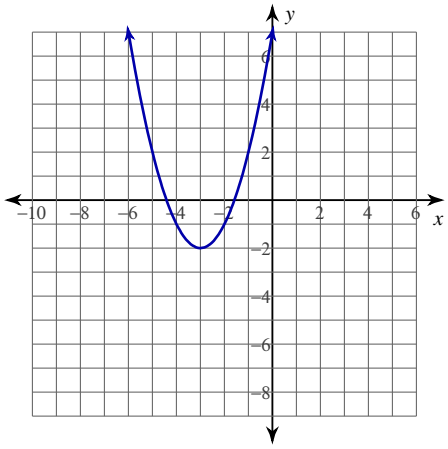
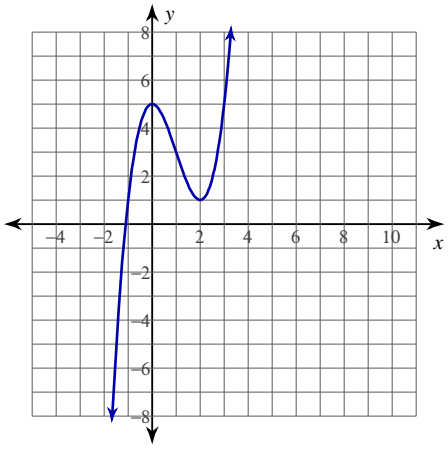


2

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



9

3) $y = x^3 - 6x^2 + 9x - 4$ at $x = 2$

-3

4) $y = -x^3 - 6x^2 - 9x + 1$ at $x = -4$

-9

5) $y = -\dfrac{1}{x^2 - 9}$ at $x = 2$

$\dfrac{4}{25}$

6) $y = -\dfrac{3}{x + 5}$ at $x = 1$

$\dfrac{1}{12}$

7) $y = -(x + 2)^{\frac{1}{3}}$ at $x = -1$

$-\dfrac{1}{3}$

8) $y = -(-x + 2)^{\frac{1}{2}}$ at $x = -5$

$\dfrac{\sqrt{7}}{14}$

9) $y = -\ln(-x + 2)$ at $x = -3$

$\dfrac{1}{5}$

10) $y = \sin(2x)$ at $x = -\pi$

2