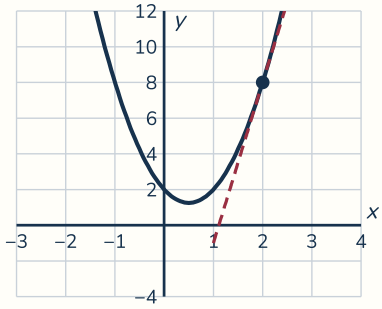
Using derivatives — Slope at a point

Name: _____ Date: _____

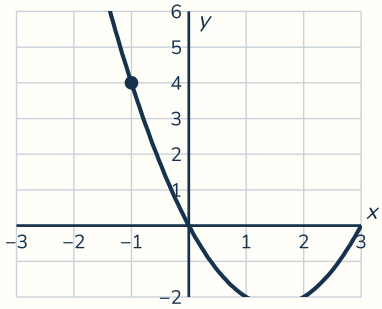
Find the slope of each curve at the point: find f'(x), then put x in.

1 $f(x) = 3x^2 - 3x + 2,\ x = 2$

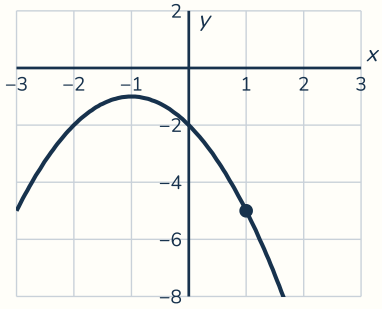
$f'(x) = 6x - 3$
$f'(2) = 6(2) - 3$
$= 9$



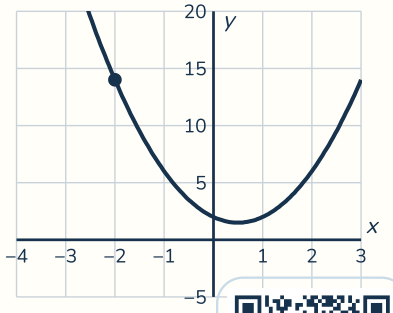
2 $f(x) = x^2 - 3x,\ x = -1$



3 $f(x) = -x^2 - 2x - 2,\ x = 1$



4 $f(x) = 2x^2 - 2x + 2,\ x = -2$



Using derivatives · Slope at a point — Answer key

1. $f(x) = 3x^2 - 3x + 2$; slope at $x = 2$ → $f'(2) = 9$

2. $f(x) = x^2 - 3x$; slope at $x = -1$ → $f'(-1) = -5$

3. $f(x) = -x^2 - 2x - 2$; slope at $x = 1$ → $f'(1) = -4$

4. $f(x) = 2x^2 - 2x + 2$; slope at $x = -2$ → $f'(-2) = -10$