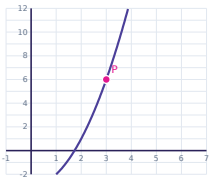
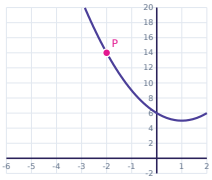
Task card 1 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 - 3$ at $x = 3$.



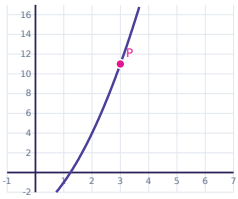
Task card 2 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 - 2x + 6$ at $x = -2$.



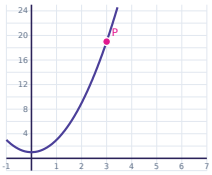
Task card 3 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = x^2 + 2x - 4$ at the point P(3, 11).



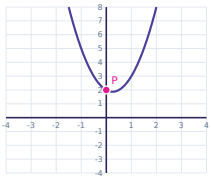
Task card 4 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 2x^2 + 1$ at $x = 3$.



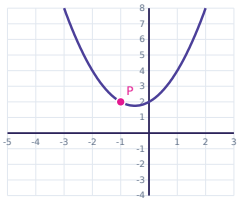
Task card 5 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 2x^2 - x + 2$ at $x = 0$.



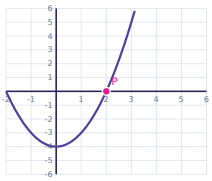
Task card 6 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = x^2 + x + 2$ at the point P(-1, 2).



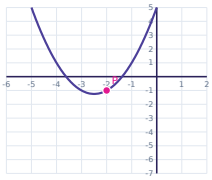
Task card 7 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 - 4$ at $x = 2$.



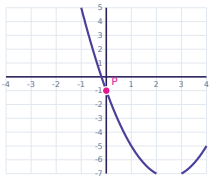
Task card 8 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 + 5x + 5$ at $x = -2$.



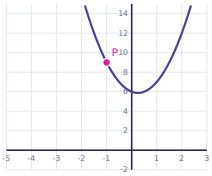
Task card 9 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 - 5x - 1$ at $x = 0$.



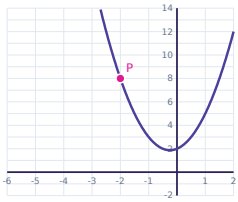
Task card 10 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 2x^2 - x + 6$ at $x = -1$.



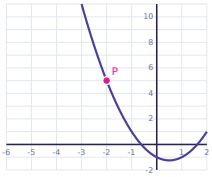
Task card 11 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = 2x^2 + x + 2$ at the point P(-2, 8).



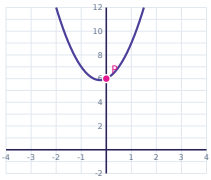
Task card 12 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 - x - 1$ at $x = -2$.



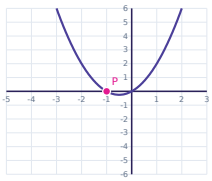
Task card 13 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 2x^2 + x + 6$ at $x = 0$.



Task card 14 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = x^2 + x$ at $x = -1$.



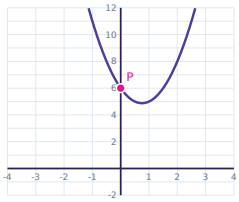
Task card 15 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 2x^2 - x + 1$ at $x = 2$.



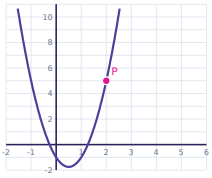
Task card 16 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = 2x^2 - 3x + 6$ at the point P(0, 6).



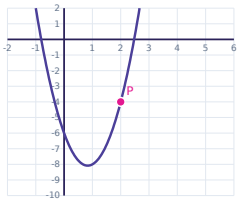
Task card 17 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 3x^2 - 3x - 1$ at $x = 2$.



Task card 18 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = 3x^2 - 5x - 6$ at the point P(2, -4).

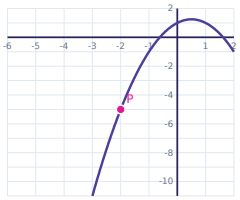


Task card 19 Slope & Equation of a Tangent Line

At what x-value is the tangent line to $f(x) = x^2 + 8x - 7$ horizontal?

Task card 20 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = -x^2 + x + 1$ at the point P(-2, -5).

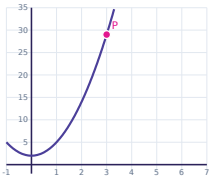


Task card 21 Slope & Equation of a Tangent Line

At what x-value is the tangent line to $f(x) = 2x^2 - 8x + 4$ horizontal?

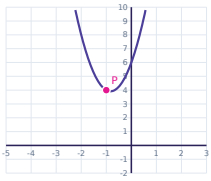
Task card 22 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 3x^2 + 2$ at $x = 3$.



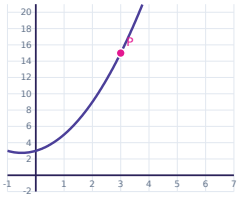
Task card 23 Slope & Equation of a Tangent Line

Find the slope of the tangent line to $f(x) = 3x^2 + 5x + 6$ at $x = -1$.



Task card 24 Slope & Equation of a Tangent Line

Find the equation of the tangent line to $f(x) = x^2 + x + 3$ at the point P(3, 15).



Slope & Equation of a Tangent Line Task Cards

Recording sheet · Grade 12 · Answer each question. Write tangent lines in the form y = mx + b.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Slope & Equation of a Tangent Line Task Cards: Answer Key

Grade 12 · Easy

The answers online

1. 6	**2.** -6	**3.** y = 8x - 13
4. 12	**5.** -1	**6.** y = -x + 1
7. 4	**8.** 1	**9.** -5
10. -5	**11.** y = -7x - 6	**12.** -5
13. 1	**14.** -1	**15.** 7
16. y = -3x + 6	**17.** 9	**18.** y = 7x - 18
19. x = -4	**20.** y = 5x + 5	**21.** x = 2
22. 18	**23.** -1	**24.** y = 7x - 6