Name : _____ Score : _____

Teacher : _____ Date : _____

Find Tangent Lines

Find the equation of the tangent line at the given point. Round to the nearest ten-thousandth.

1) $y = x^3 - 7x^2 + 10x$, at (-2, -56)

2) $y = 4^{(-x - 2)}$, at (2, 0.0039)

3) $y = \cos(-x + 2)$, at (π, 0.4161)

4) $y = x^3 + 6x^2 - 32$, at (0, -32)

5) $y = \frac{x + 2}{x^2 - 2x - 3}$, at (0, -0.6667)

6) $y = \frac{x - 1}{x^2 - x - 2}$, at (1, 0)

7) $y = e^{(x + 1)}$, at (2, 20.0855)

8) $y = \sin(-x + 1)$, at ($\frac{-3\pi}{4}$, -0.213)

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Find Tangent Lines

Find the equation of the tangent line at the given point. Round to the nearest ten-thousandth.

1) $y = x^3 - 7x^2 + 10x$, at (-2, -56)

$y = 50x + 44$

2) $y = 4^{(-x - 2)}$, at (2, 0.0039)

$y = -0.0039x + 0.0117$

3) $y = \cos(-x + 2)$, at (π, 0.4161)

$y = -0.9093x + 3.2728$

4) $y = x^3 + 6x^2 - 32$, at (0, -32)

$y = -32$

5) $y = \frac{x + 2}{x^2 - 2x - 3}$, at (0, -0.6667)

$y = 0.1111x - 0.6667$

6) $y = \frac{x - 1}{x^2 - x - 2}$, at (1, 0)

$y = -0.5x + 0.5$

7) $y = e^{(x + 1)}$, at (2, 20.0855)

$y = 20.0855x - 20.0855$

8) $y = \sin(-x + 1)$, at ($\frac{-3\pi}{4}$, -0.213)

$y = 0.9771x + 2.0892$