Name : _____ Score : _____

Teacher : _____ Date : _____

# Find Normal Lines

**Find the equation of the normal line at the given point. Some lines may be vertical.**

1) $y = 4^{(x + 1)}$, at (3, 256)

2) $y = \cos(-x - 2)$, at $(\frac{\pi}{2}, -0.9093)$

3) $y = \sin(x^2 + 2x)$, at $(2\pi, 0.9783)$

4) $y = x^2 - 2x + 1$, at (2, 1)

5) $y = x^2 + x$, at (-1, 0)

6) $y = 4^{(-x - 1)}$, at (-3, 16)

7) $y = \frac{x^2 + 2x - 8}{x - 2}$, at (-3, 1)

8) $y = \frac{x^2 - 5x + 6}{x + 2}$, at (3, 0)

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# Find Normal Lines

**Find the equation of the normal line at the given point. Some lines may be vertical.**

1) $y = 4^{(x + 1)}$, at (3, 256)

$y = -0.0039x + 256.0117$

2) $y = \cos(-x - 2)$, at $(\frac{\pi}{2}, -0.9093)$

$y = -2.403x + 2.8653$

3) $y = \sin(x^2 + 2x)$, at $(2\pi, 0.9783)$

$y = 0.3316x - 1.1055$

4) $y = x^2 - 2x + 1$, at (2, 1)

$y = -0.5x + 2$

5) $y = x^2 + x$, at (-1, 0)

$y = x + 1$

6) $y = 4^{(-x - 1)}$, at (-3, 16)

$y = 0.0625x + 16.1875$

7) $y = \frac{x^2 + 2x - 8}{x - 2}$, at (-3, 1)

$y = -x - 2$

8) $y = \frac{x^2 - 5x + 6}{x + 2}$, at (3, 0)

$y = -5x + 15$