

1. $f(x) = x^2 + 4x + 8$

vertex form: _____

vertex _____ max or min?

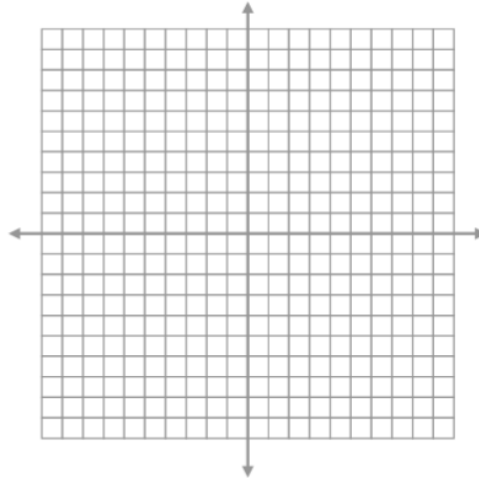
x – int _____

y – int _____

axis of sym _____

domain _____

range _____



2. $f(x) = 3x^2 - 18x + 15$

vertex form: _____

vertex _____ max or min?

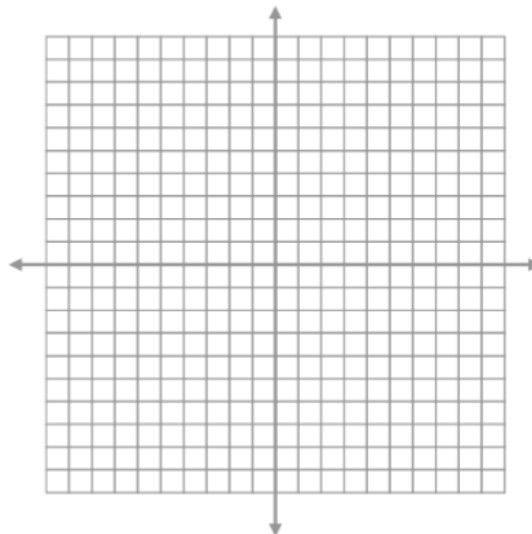
x – int _____

y – int _____

axis of sym _____

domain _____

range _____



3. $f(x) = 2x^2 + 10x + 12$

vertex form: _____

vertex _____ max or min?

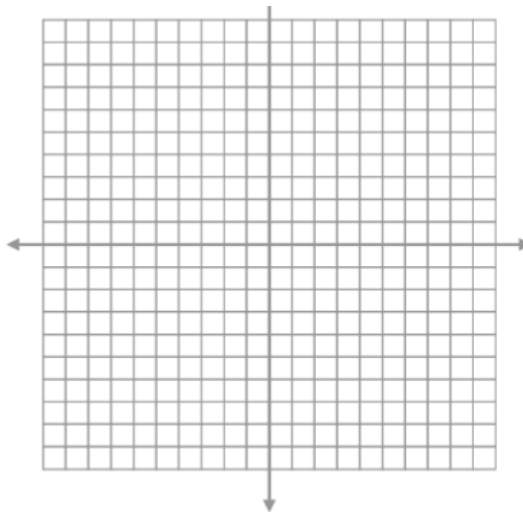
x-int _____

y-int _____

axis of sym _____

domain _____

range _____



Write the equation for the quadratic in $f(x) = a(x-h)^2 + k$ form with the given vertex that passes through the given point.

4. Vertex $(-6, 8)$ through point $(-4, 10)$

5. Vertex $(-2, 7)$ through point $(3, -18)$

ANSWERS

1. $y = (x+2)^2 + 4$

min $(-2, 4)$

x-int none

y-int $(0, 8)$

sym $x = -2$

D $x \in \mathbb{R}$ R $y \geq 4$

2. $y = 3(x-3)^2 - 12$

min $(3, -12)$

x-int $(5, 0)$ & $(1, 0)$

y-int $(0, 15)$

sym $x = 3$

D $x \in \mathbb{R}$ R $y \geq -12$

3. $y = 2\left(x + \frac{5}{2}\right)^2 - \frac{1}{2}$

min $y = \left(\frac{-5}{2}, \frac{-1}{2}\right)$

x-int $(-2, 0)$, $(-3, 0)$

y-int $(0, 12)$

sym $x = \frac{-5}{2}$

D $x \in \mathbb{R}$ R $y \geq \frac{-1}{2}$

4. $y = \frac{1}{2}(x+6)^2 + 8$

5. $y = -1(x+2)^2 + 7$