

Homework

Algebra 1 Unit 7 Graphing Quadratic Functions

Name: _____

Key

Date: _____

Period: _____

Graphing Quadratic Functions

Complete the following information for each parabola and graph.

1. $y = x^2 - 1$	2. $y = x^2 - 4x + 3$	3. $y = -x^2 + 4$
AOS: $x = 0$ Vertex: $(0, -1)$ ^{min}	AOS: $x = \frac{-(-4)}{2(1)} = 2$ Vertex: $(2, -1)$ ^{min}	AOS: $x = 0$ Vertex: $(0, 4)$ ^{max}
x-int/roots/zeros/solutions: $x = -1$ $(-1, 0)$ $(1, 0)$ or $x = 1$	x-int/roots/zeros/solutions: $(1, 0)$ $(3, 0)$ $\{1, 3\}$	x-int/roots/zeros/solutions: $(-2, 0)$ $(2, 0)$ $\{-2, 2\}$
y-intercept: $(0, -1)$	y-intercept: $(0, 3)$	y-intercept: $(0, 4)$
Domain: \mathbb{R}	Domain: \mathbb{R}	Domain: \mathbb{R}
Range: $\mathbb{R} \geq -1$	Range: $\mathbb{R} \geq -1$	Range: $\mathbb{R} \leq 4$
4. $y = x^2 + 2x + 1$	5. $y = \frac{1}{2}x^2 + 2x + 1$	6. $y = -2x^2$
AOS: $x = -1$ Vertex: $(-1, 0)$ ^{min}	AOS: $x = -2$ Vertex: $(-2, -1)$ ^{min}	AOS: $x = 0$ Vertex: $(0, 0)$ ^{max}
x-int/roots/zeros/solutions: $x = -1$	x-int/roots/zeros/solutions: $(-3, 0)$ $(-1, 0)$	x-int/roots/zeros/solutions: $(0, 0)$
y-intercept: $(0, 1)$	y-intercept: $(0, 1)$	y-intercept: $(0, 0)$
Domain: \mathbb{R}	Domain: \mathbb{R}	Domain: \mathbb{R}
Range: $\mathbb{R} \geq 1$	Range: $\mathbb{R} \geq -1$	Range: $\mathbb{R} \leq 0$

