1. Identify the indicated information for each of the following.

$y = 3(x-1)^2 - 5$

opens: up down _____

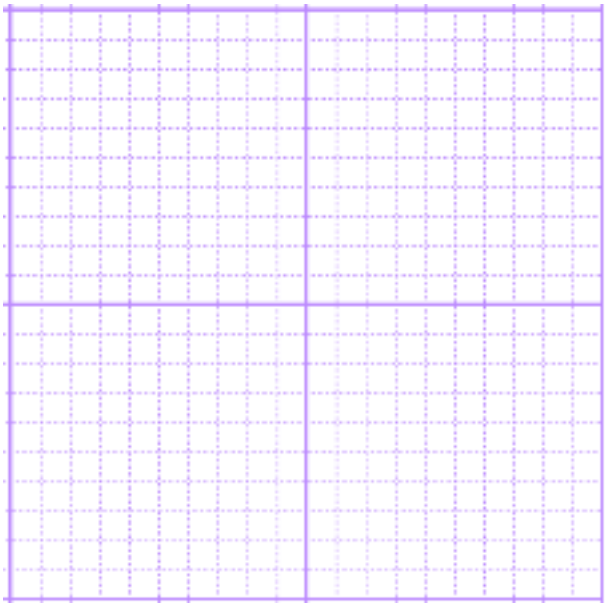
vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

Domain: _____

Range: _____



2. Identify the indicated information for each of the following.

$y = -\frac{1}{2}(x-4)^2 + 9$

opens: up down _____

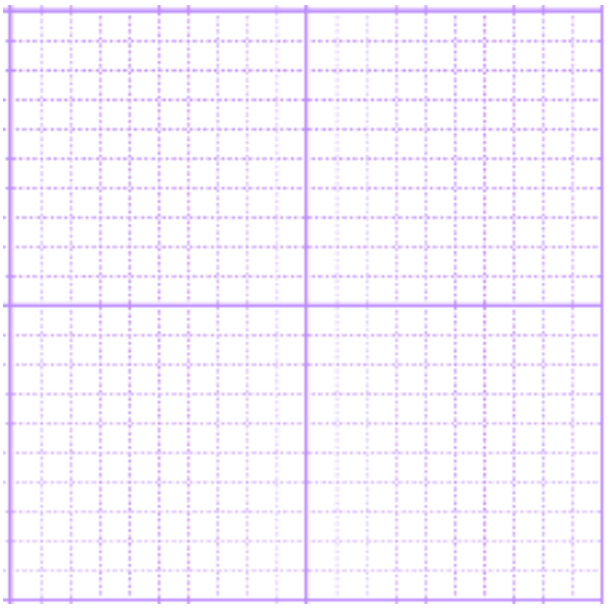
vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

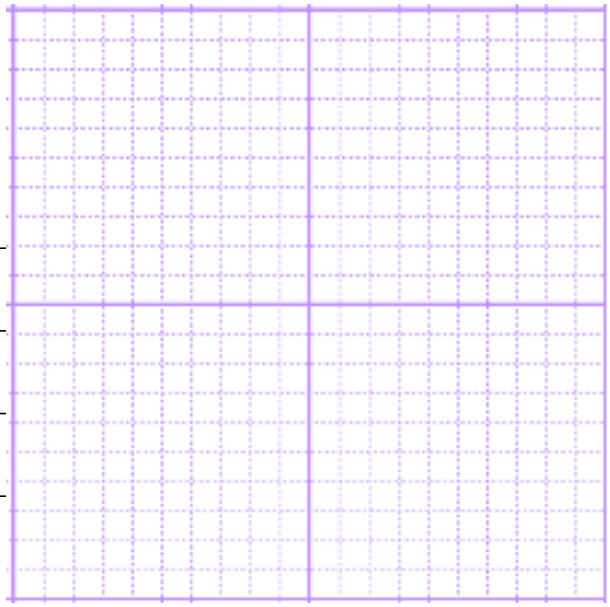
Domain: _____

Range: _____



3. Identify the indicated information for each of the following.

$y = (x-5)^2 - 6$



opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

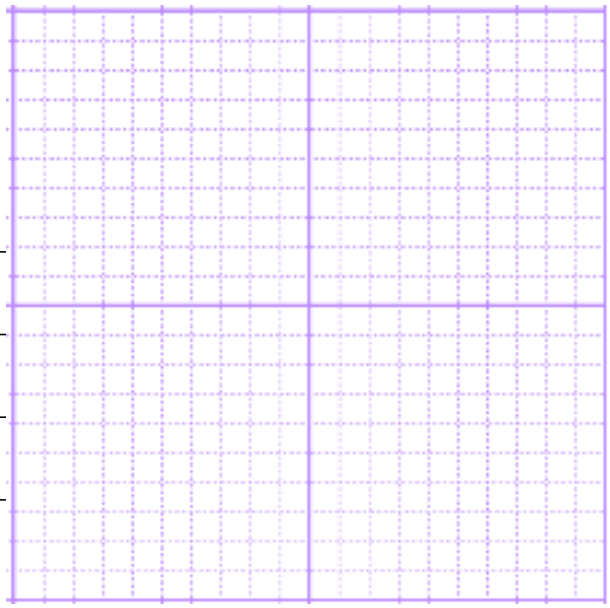
Δx = _____

Domain: _____

Range: _____

4. Identify the indicated information for each of the following.

$y = \frac{1}{3}(x+4)^2 - 8$



opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

Δx = _____

Domain: _____

Range: _____

Completing the Square

Put each equation in the "graphing form"

$y = a(x-h)^2 + k$

5. $y = -\frac{1}{3}x^2 - 2x - 5$

$y = a(x-h)^2 + k$ _____

opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

x	y

Identify the roots, solutions, or zeros of the parabola by solving it. Also identify the type of roots as rational, irrational, non real.

6. $y = 2x^2 + 20x + 9$

$y = a(x-h)^2 + k$ _____

opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

x	y

Identify the roots, solutions, or zeros of the parabola by solving it. Also identify the type of roots as rational, irrational, non real.

7. $y = \frac{1}{2}x^2 + 3x - 1$

$y = a(x-h)^2 + k$ _____

opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

x	y

Identify the roots, solutions, or zeros of the parabola by solving it. Also identify the type of roots as rational, irrational, non real.

8. $y = x^2 + 8x + 19$

$y = a(x-h)^2 + k$ _____

opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

x	y

Identify the roots, solutions, or zeros of the parabola by solving it. Also identify the type of roots as rational, irrational, non real.

Graphing more parabolas

9. $y = x^2 - 4x + 3$

$y = a(x-h)^2 + k$ _____

opens: up down _____

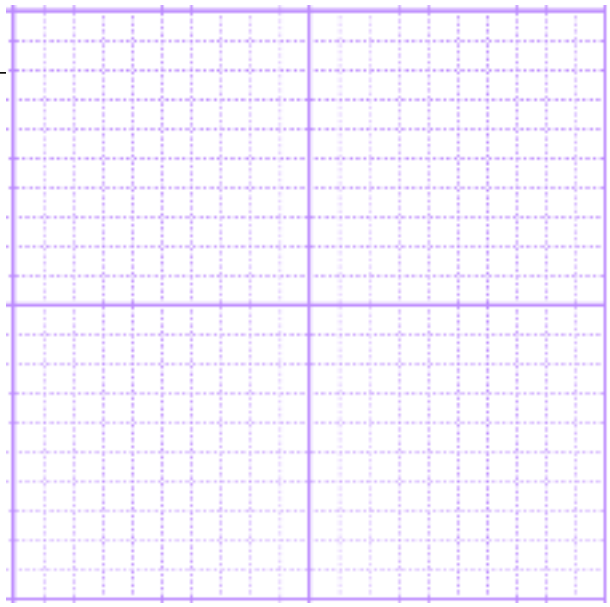
vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

Domain: _____

Range: _____



10. $y = -2x^2 - 12x + 7$

$y = a(x-h)^2 + k$ _____

opens: up down _____

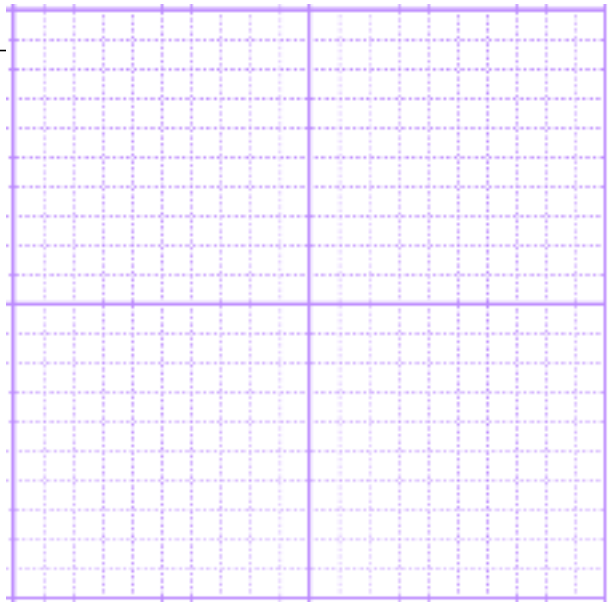
vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

Domain: _____

Range: _____



11. $y = -\frac{1}{5}x^2 + 2x + 3$

$y = a(x-h)^2 + k$ _____

opens: up down _____

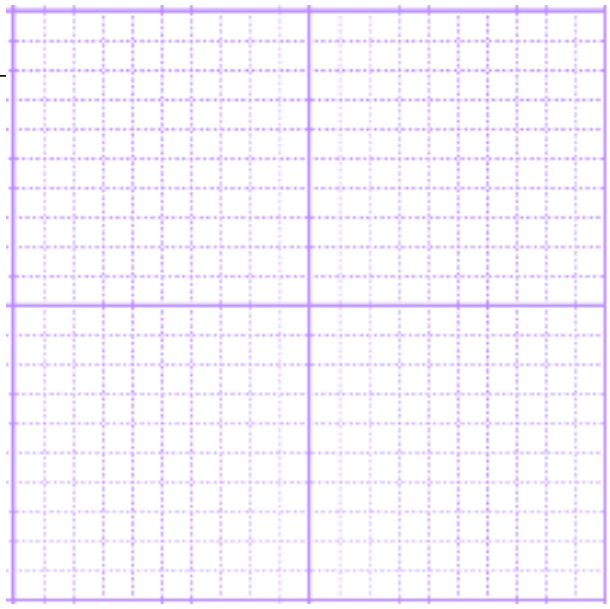
vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

Domain: _____

Range: _____



12. $y = \frac{1}{2}x^2 - 4x - 2$

$y = a(x-h)^2 + k$ _____

opens: up down _____

vertex (x , y) max min _____

obtuse acute standard _____

$\Delta x =$ _____

Domain: _____

Range: _____