



Name _____ Date _____ Period _____

GRAPHING QUADRATIC FUNCTIONS STANDARD FORM WORKSHEET #2

Directions: Answer the questions below and sketch the graph of each function.

1. $f(x) = -x^2 - 6x - 6$
 $a =$ $b =$ $c =$ Opens Up or Down?

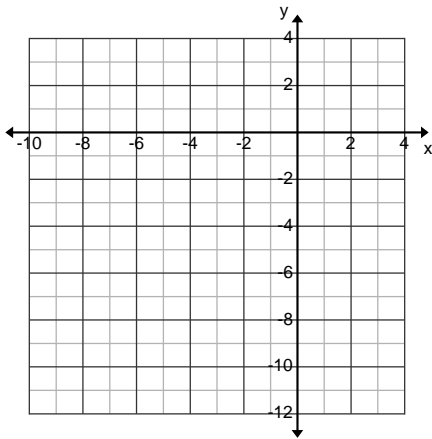
Is the vertex a Max or Min?

y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain: Range:



2. $f(x) = \frac{1}{2}x^2 - 4x + 4$
 $a =$ $b =$ $c =$ Opens Up or Down?

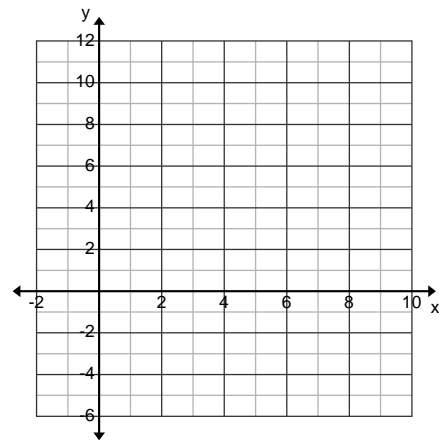
Is the vertex a Max or Min?

y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain: Range:



3. $f(x) = -2x^2 + 8x - 9$
 $a =$ $b =$ $c =$ Opens Up or Down?

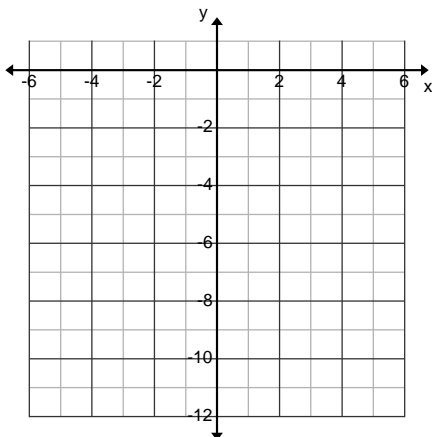
Is the vertex a Max or Min?

y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain: Range:



4. $f(x) = 2x^2 - 1$
 $a =$ $b =$ $c =$ Opens Up or Down?

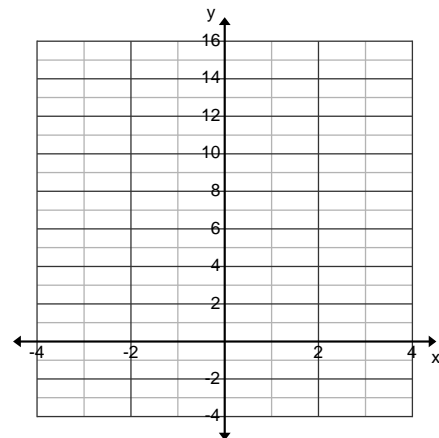
Is the vertex a Max or Min?

y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain: Range:



5. $f(x) = 2x^2 + 4x + 3$

$a =$ $b =$ $c =$

Opens Up or Down?

Is the vertex a Max or Min?

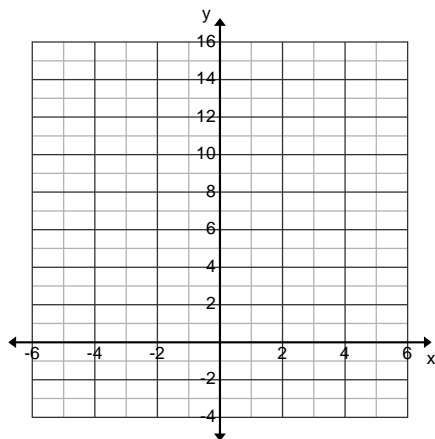
y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain:

Range:



6. $f(x) = -3x^2 - 12x + 1$

$a =$ $b =$ $c =$

Opens Up or Down?

Is the vertex a Max or Min?

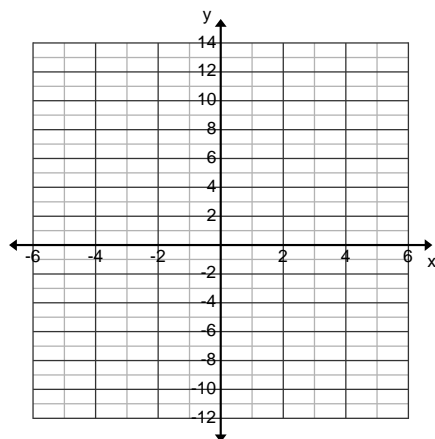
y-intercept:

Axis of symmetry is $x =$ _____

Vertex: (_____, _____)

Domain:

Range:



7) A baker has modeled the monthly operating costs for making wedding cakes by the function

$y = \frac{1}{2}x^2 - 12x + 150$ where y is the total cost in dollars and x is the number of cakes prepared.

a) What is the minimum operating cost?

b) How many cakes should be prepared to yield the minimum operating cost?

c) What is the baker's monthly operating cost if the baker makes no cakes?

8) The path that a motocross dirt bike rider follows during a jump is given by $y = -0.4x^2 + 4x + 10$ where x is the horizontal distance (in feet) from the edge of the ramp and y is the height (in feet). What is the maximum height of the rider during the jump?