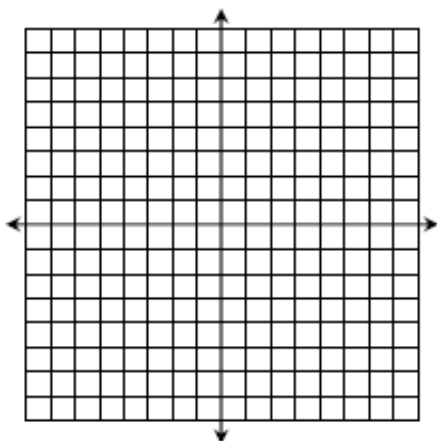


MONDAY

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

x	y



Axis of Symmetry:

Vertex:

Domain:

Range:

Transformations:

Describe the transformations from $y = x^2$
 $y = (x + 3)^2 + 1$

Find the vertex and axis of symmetry for the equations below:

a. $y = 2x^2 - 8x + 6$

b. $y = 2(x - 4)^2 + 7$

Write an equation to represent the transformation from the parent function: $y = x^2$.
 Vertical stretch by a factor of 4, reflected over the x-axis, down 8.

Write an equation to represent the transformation from the parent function: $y = x^2$.
 Right 3, down 7, reflected over the x-axis

TUESDAY

Decide if the following functions are even, odd, or neither.

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

b. $f(x) = 3x^3 + 2x$

c. $f(x) = 5x + 1$

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

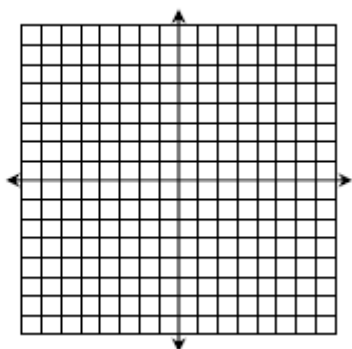
A clown is shot from a cannon from an initial height of 10 feet at an initial velocity of 25 feet per second, modeled by $h = -16t^2 + 25t + 10$. What is the maximum height of the clown?

Write an equation to represent the transformation from the parent function: $y = x^2$.Vertical shrink (compression) by a factor of $\frac{1}{4}$, left 2, up 12.

Using the same details from the previous problem, how long will it take the clown to reach the ground?

$$y = -x^2 + 7$$

x	y



Axis of Symmetry:

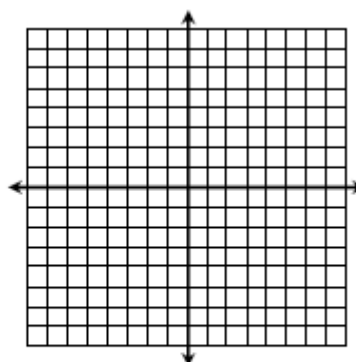
Vertex:

Domain:

Range:

$$y = x^2 + 2x + 1$$

x	y



Zeros:

WEDNESDAY

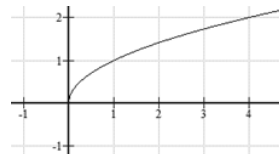
Find the average rate of change of $y = x^2 + 2x - 1$ over the interval $[0, 3]$.

Find the average rate of change of $y = 2x^2 - 1$ over the interval $[2, 4]$.

Find the average rate of change over the interval $[-3, 4]$ for $y = -x^2 + 2x$

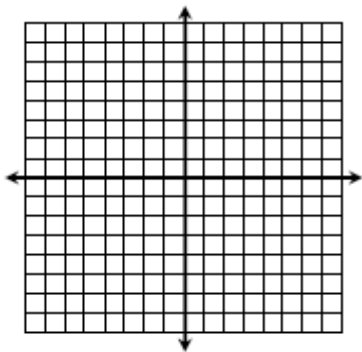
Which function has the greatest average rate of change from $x = 0$ to $x = 4$?

x	0	2	4	6	8	10	12
y	-5	-2	-1	0	2	3	7



$$y = -x^2 + 6x - 5$$

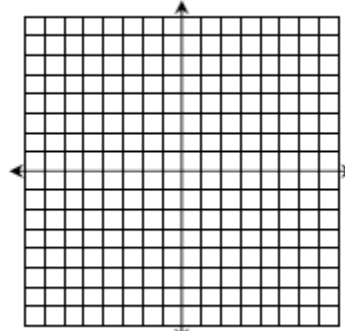
x	y



Zeros:

$$y = x^2 - 2x - 5$$

x	y



Axis of Symmetry:

Vertex:

Domain:

Range:

THURSDAY

Use completing the square to change standard form to vertex form.

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

Decide if the functions are even, odd or neither.

$$y = 3x^5 + 5x$$

$$y = 8x^2 + 2x^4$$

Decide if the functions are even, odd or neither.

$$y = 3x^2 + 5$$

$$y = 8x + 2$$

The area of a rectangle is 70 square inches. If one side is $(x + 3)$ and the other side is $(x + 6)$, what is the value of x ?

Use completing the square to change standard form to vertex form.

$$y = x^2 - 14x + 7$$

Find the vertex and axis of symmetry for the equations below:

a. $y = 3x^2 - 12x + 14$

b. $y = (x - 9)^2$

Describe the transformations from $y = x^2$
 $y = -5x^2 - 6$

Find the average rate of change over the interval $[0, 4]$ for $y = -4x^2 + 3x$