

Warm Up Questions

#1

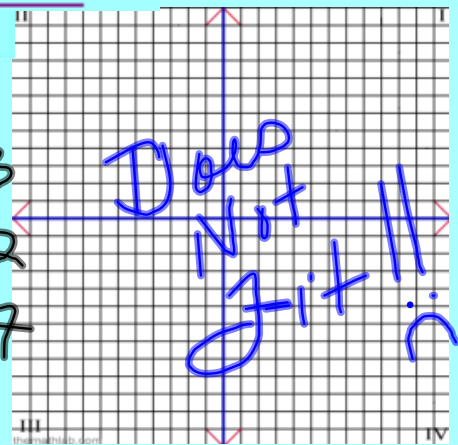
Equation: $\frac{1}{3}y + 1 = (x - 1)^2 + 6$

Vertex: $(1, 15)$

Stretch Factor: 3

Direction: up

	Over	up
1		$1 \times 3 = 3$
2		$4 \times 3 = 12$
3		$9 \times 3 = 27$



#2

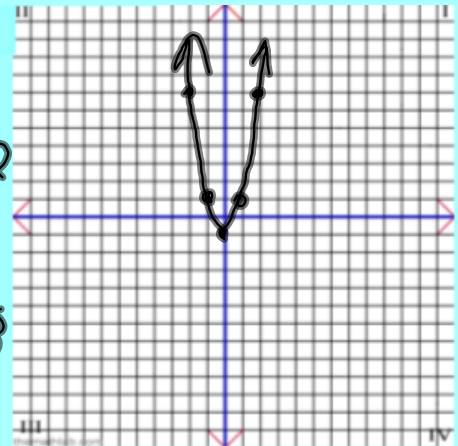
Equation: $-4(y - 2) = -8x^2 + 12$

Vertex: $(0, -1)$

Stretch Factor: 2

Direction: up

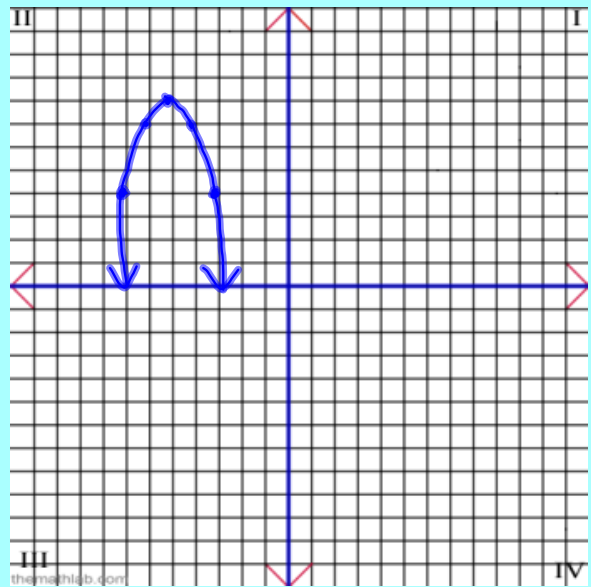
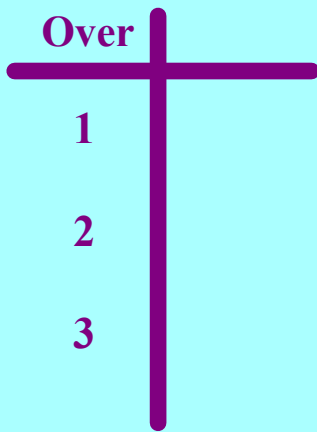
	Over	up
1		$1 \times 2 = 2$
2		$4 \times 2 = 8$
3		$9 \times 2 = 18$



#1

Equation:
Vertex:
Stretch Factor:
Direction:

$(-5, 8)$
 $y = -(x+5)^2 + 8$
1
Down



#2

Equation:

$$y = 2(x-6)^2 + 4$$

Vertex:

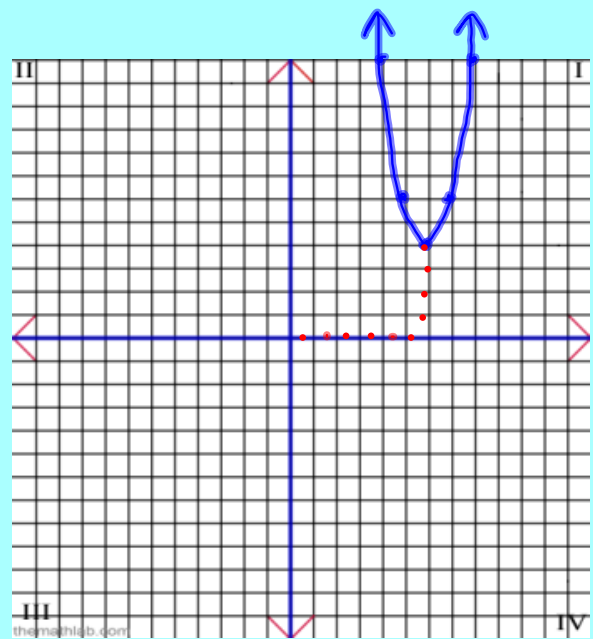
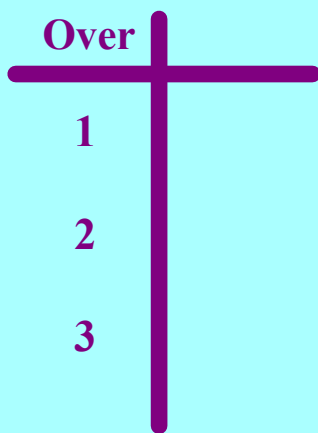
(6, 4)

Stretch Factor:

2

Direction:

Up



#3

Equation:

$$y = -3(x-6)^2$$

Vertex:

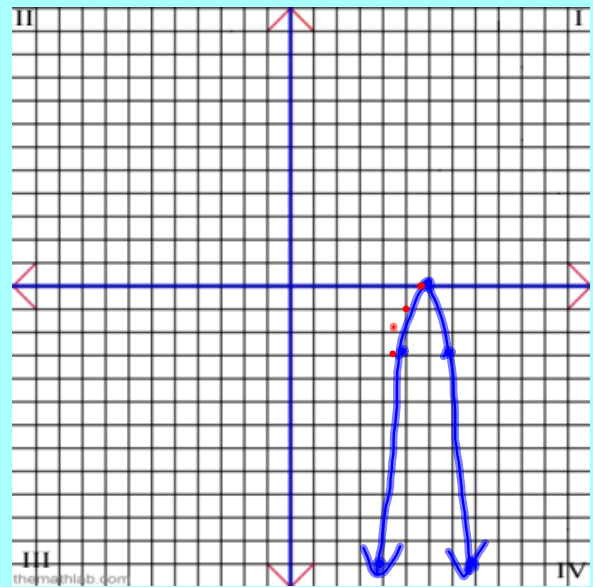
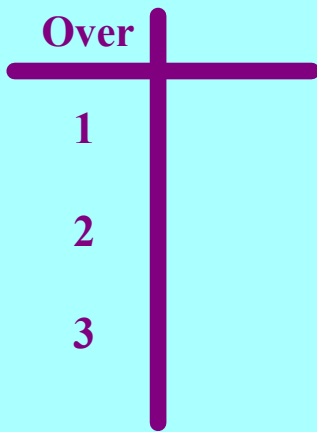
$$(6, 0)$$

Stretch Factor:

3

Direction:

Down



#4

Equation:

$y = 1(x+0)^2 - 2$ or $y = x^2 - 2$

Vertex:

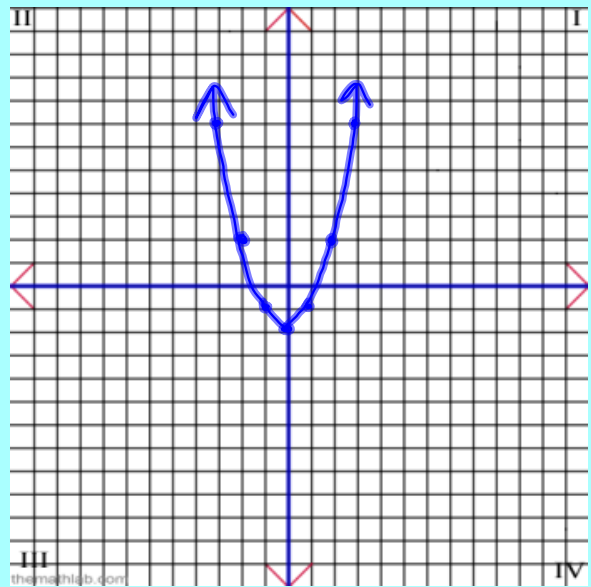
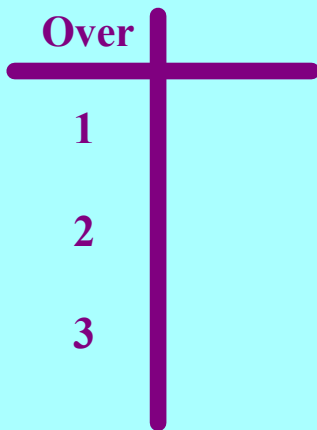
$(0, -2)$

Stretch Factor:

1

Direction:

up



#5

Equation:

$$y = -\frac{1}{2}(x+6)^2 + 6$$

Vertex:

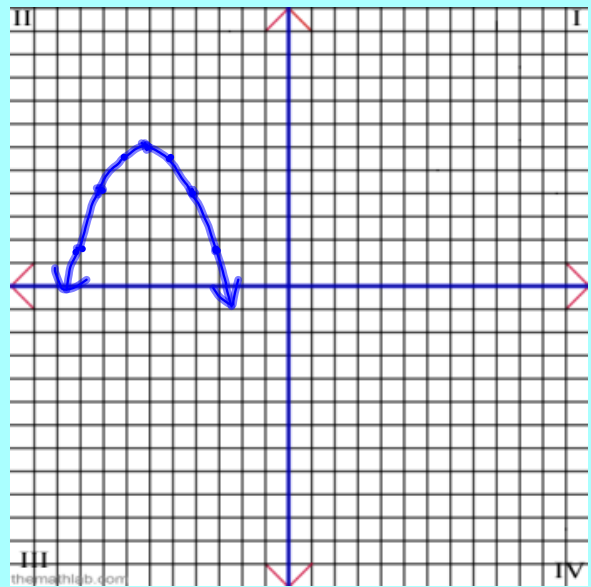
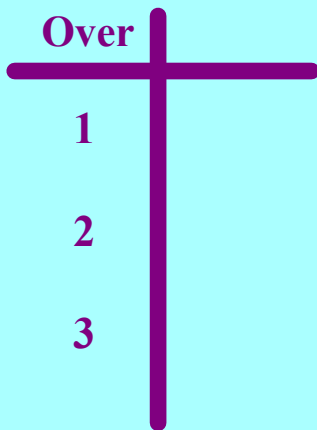
$$(-6, 6)$$

Stretch Factor:

$$\frac{1}{2}$$

Direction:

Down



#6

Equation:

$$y = -4(x+0)^2 - 4 \quad \text{or} \quad y = -4x^2 - 4$$

Vertex:

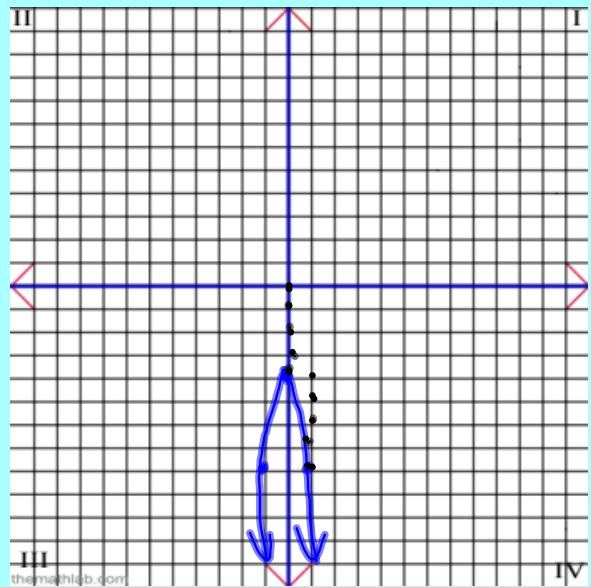
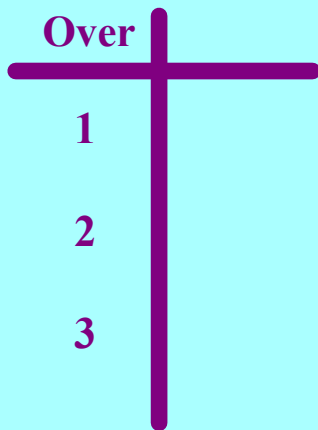
$$(0, -4)$$

Stretch Factor:

4

Direction:

Down



#7

Equation:

$$y = \frac{1}{2}(x+7)^2$$

Vertex:

$$(-7, 0)$$

Stretch Factor:

$$\frac{1}{2}$$

Direction:

Up

