

## Lesson 1 Instructional Materials

### Day 1 Bell Work

1. Find the equation of a line whose slope is 4 and passes through point  $(-7, -1)$ .  
Graph it!
2. Find the equation of a line whose slope is  $\frac{1}{2}$  and passes through point  $(10, 4)$ .  
Graph it!

Name\_\_\_\_\_

Period\_\_\_\_\_ Date\_\_\_\_\_

My Graphing Notebook

(please decorate me)

# Linear Equations

Parent Function \_\_\_\_\_

Important Vocabulary:

Slope: \_\_\_\_\_

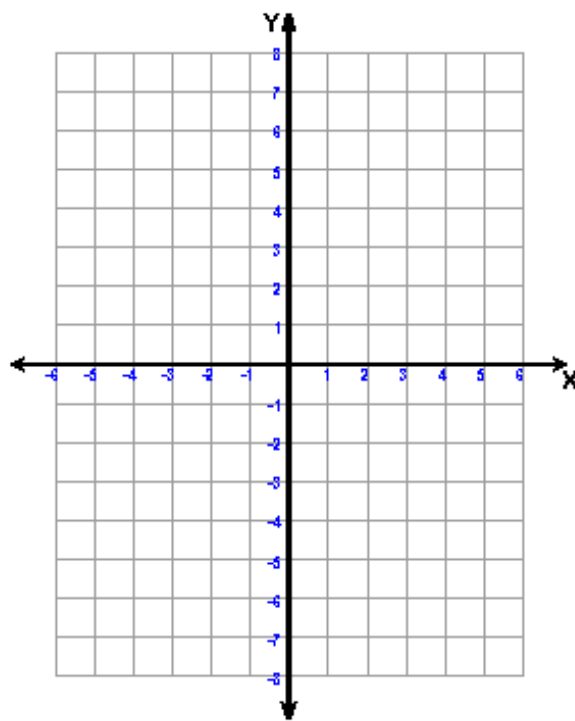
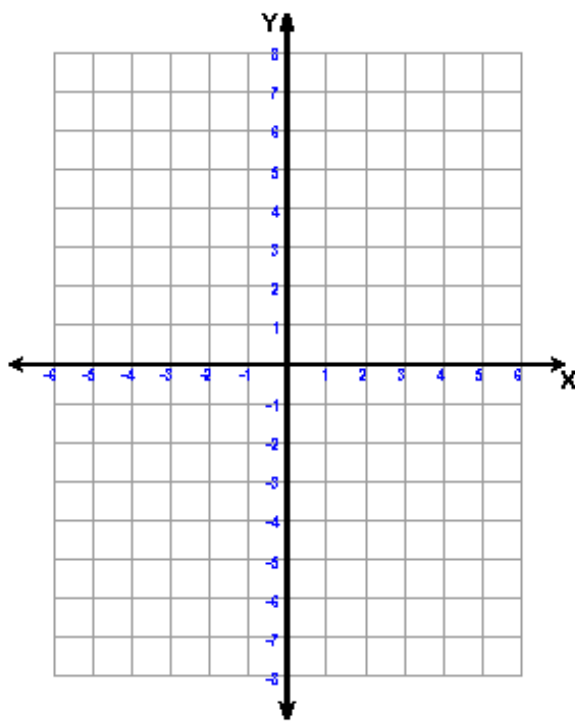
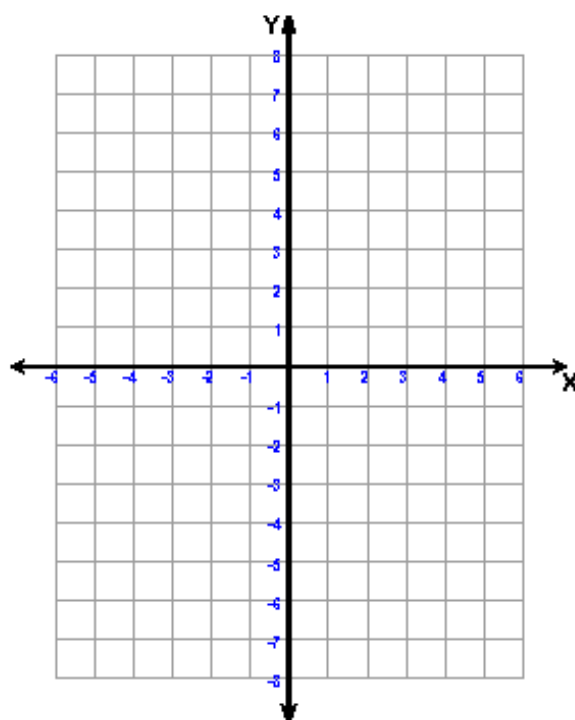
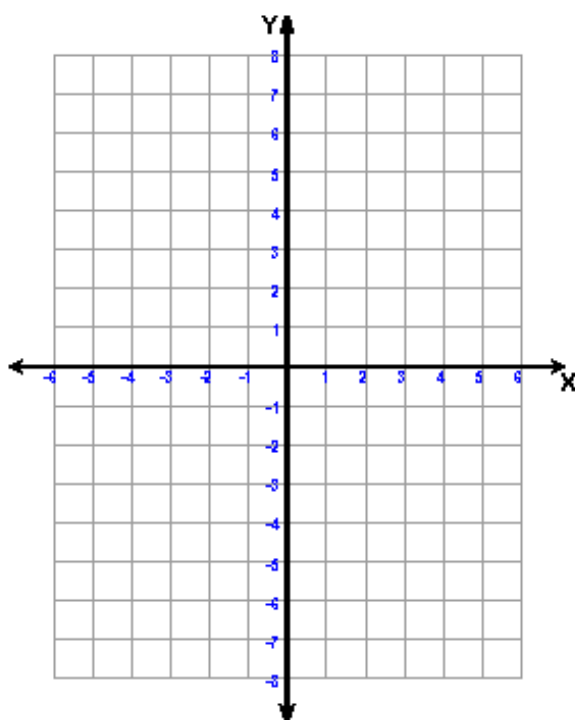
Y-intercept: \_\_\_\_\_

Slope-intercept form: \_\_\_\_\_

Standard form: \_\_\_\_\_

How to Solve:

## Graphing Examples



# Quadratic Equations

Parent Function \_\_\_\_\_

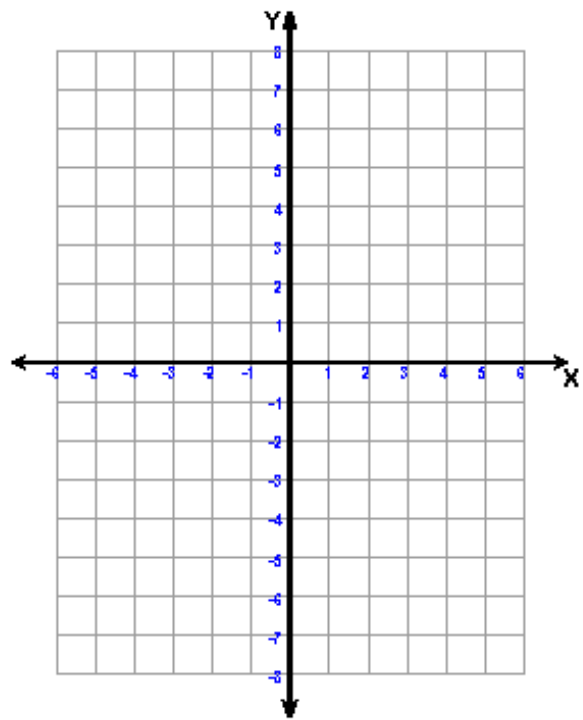
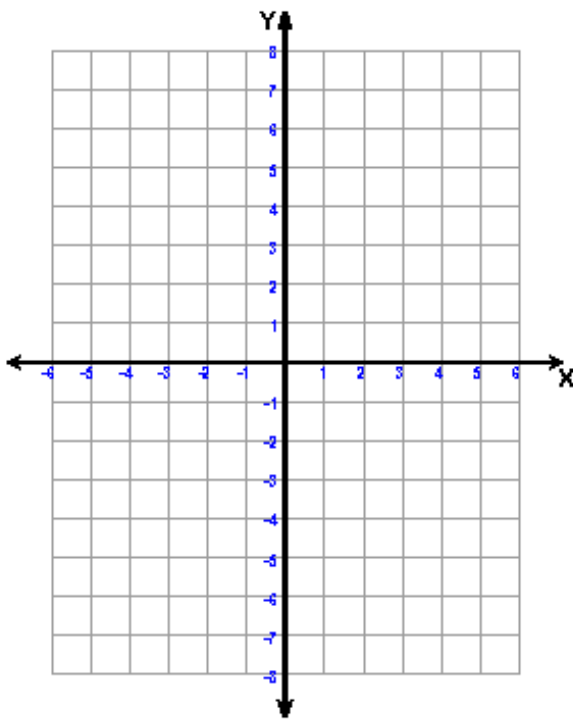
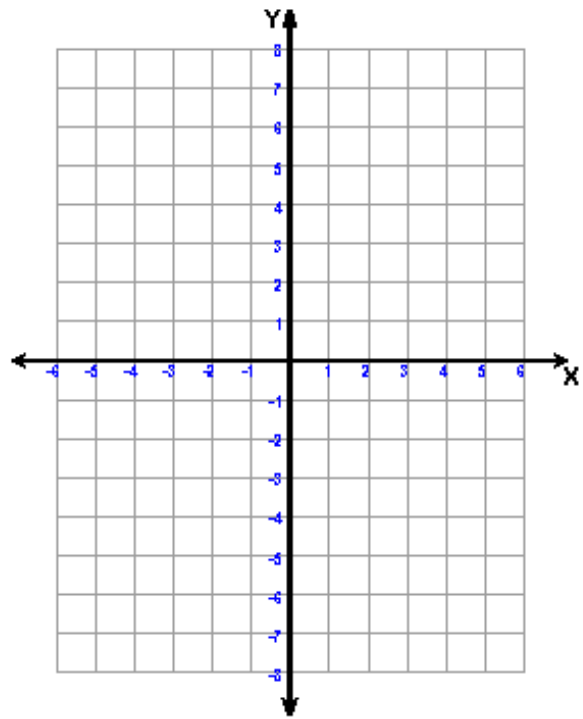
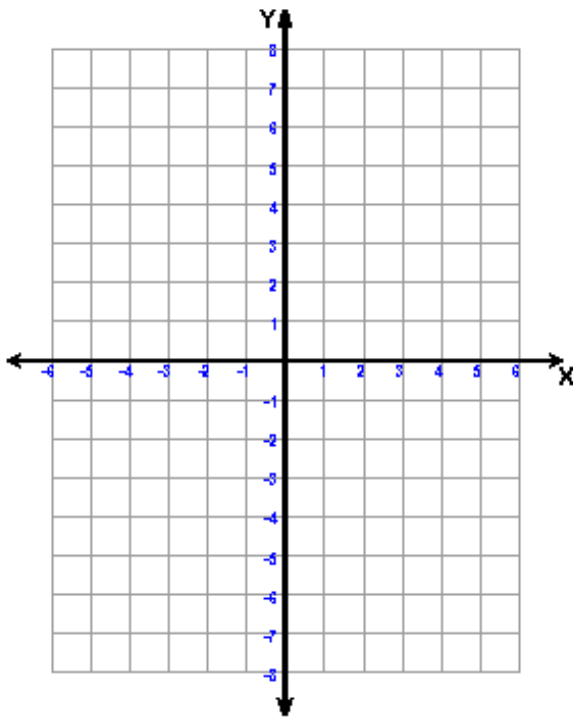
Important Vocabulary:

Vertex: \_\_\_\_\_

Standard form: \_\_\_\_\_

How to Solve:

## Graphing Examples



## Lesson 2 Instructional Materials

### Day 2 Bell Work

Sketch the graph of each Function.

$$Y = x + 4$$

$$Y = \frac{1}{3}x - 7$$

$$Y = x^2$$

$$Y = x^2 - 4$$

# Exponential Equations

Parent Function \_\_\_\_\_

Important Vocabulary:

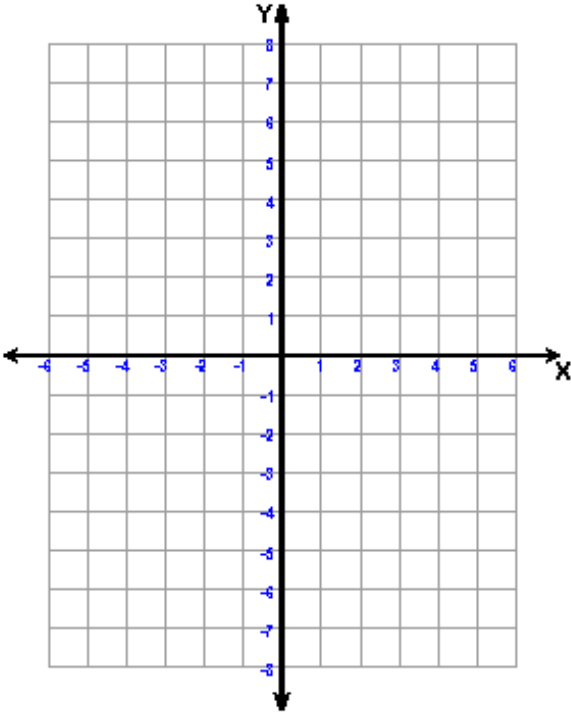
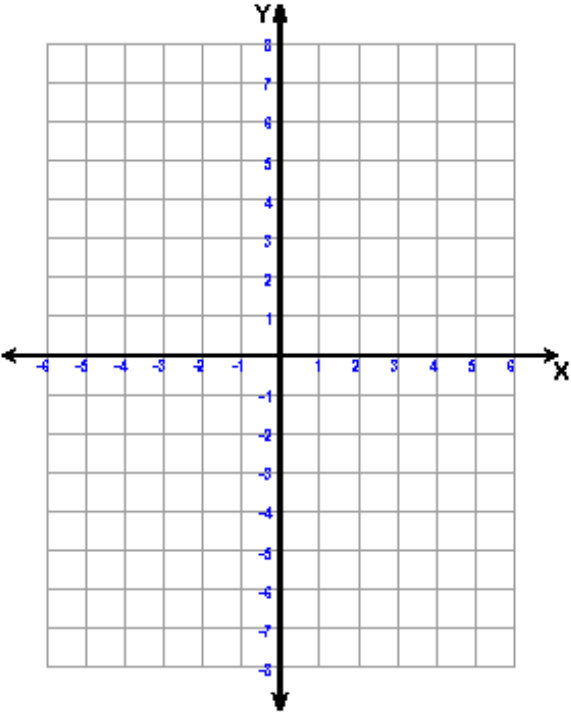
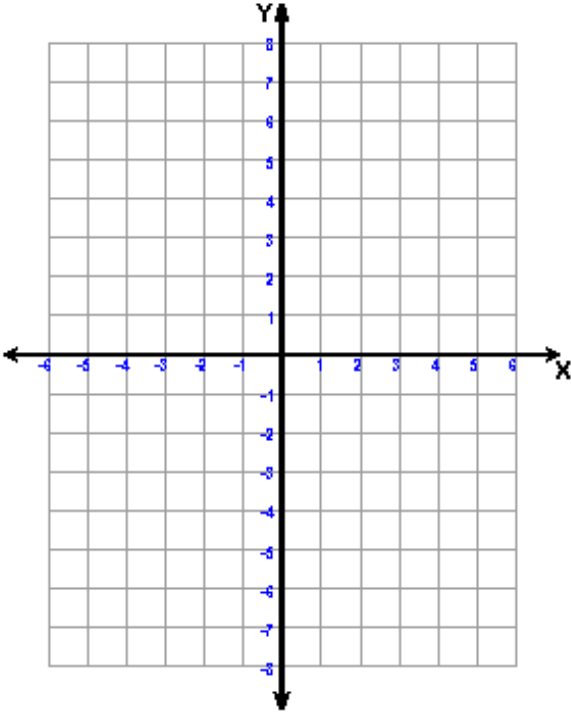
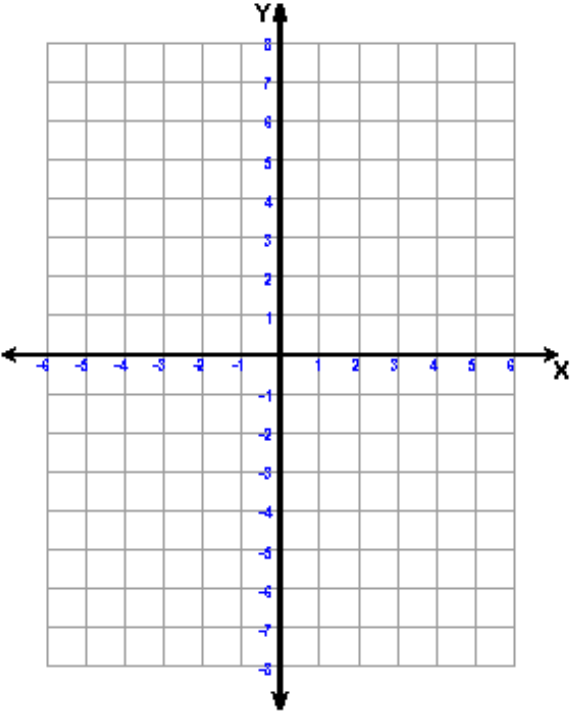
Base: \_\_\_\_\_

Standard form: \_\_\_\_\_

How to Solve:



# Graphing Examples



## Lesson 3 Instructional Materials

### Day 3 Bell Work

Sketch the graph of each Function.

$$Y = -\frac{3}{4}x + 2$$

$$Y = x^2 + 7$$

$$Y = 3x^2$$

$$Y = 2^x$$

# Function Deciphering

Sometimes we are given functions that we have to classify and decipher without any other information except what we know about Linear, Quadratic, and Exponential Functions. In this activity you will have to decipher whether a Function is Linear, Quadratic, Exponential, then graph it, and finally write any important information we need to know about the given Function.

Directions: For each function you will cut it out, glue in onto a piece of construction paper, and do/write the following on the construction paper.

- Graph the Function on the given graph paper and glue it onto the piece of construction paper
- Write a table of values
- and write the following important information:
  - For Linear Functions: y-intercept and slope
  - For Quadratic Equations: the vertex and zeros
  - For Exponential: the rate it is growing

$y = 2x^2 + 5$	$y = -\frac{3}{4}x + 2$
$y = 3x + 4$	$y = x + 4$
$y = x - 7$	$y = -3x + 2$
$y = 6x + 3$	$y = 2^x - 4$
$y = x^2 - 4$	$y = 3^x$

$$y = -\frac{1}{3}x + 4$$

$$y = x^2$$

