

# LESSON: Linear & Non-Linear Functions

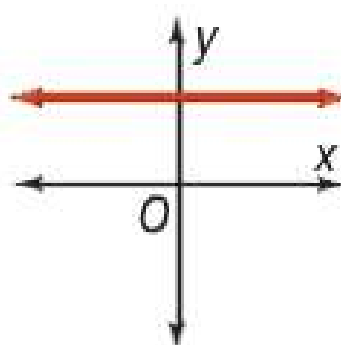
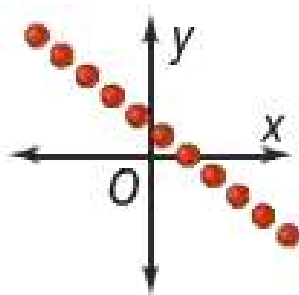
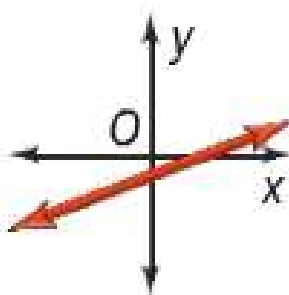
## Function Unit

Name: \_\_\_\_\_ Hour: \_\_\_\_\_

**OBJECTIVE (Students will be able to...):**

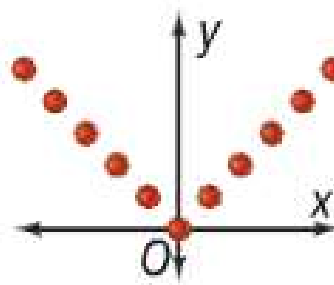
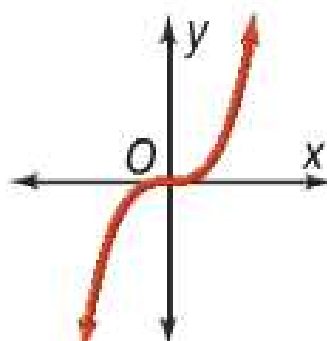
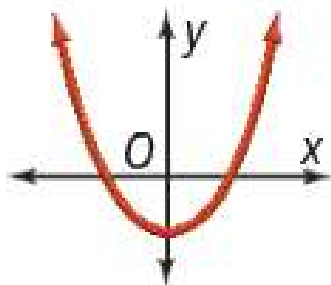
Use the coordinate plane to graph and explain functions.

**Linear Function:** Any **function** that graphs to a straight line. Mathematically it is a **function** that has either one or two variables with no exponents or powers. Any equation in Slope Intercept Form is a linear function.



**NOTES:**

**Non-Linear Function:** Any function that graphs a non-straight line. Mathematically it is a function that contains exponents or powers.



# LESSON: Linear & Non-Linear Functions

## Function Unit

### Determining Linear vs. Non-Linear

For each equation, fill in the table and graph the points. You can graph all 4 equations on the coordinate plane below. Number each graph. Circle the equations that produce a linear graph.

1.  $y = 2x + 3$

x							
y							

2.  $y = x^2 - 3x$

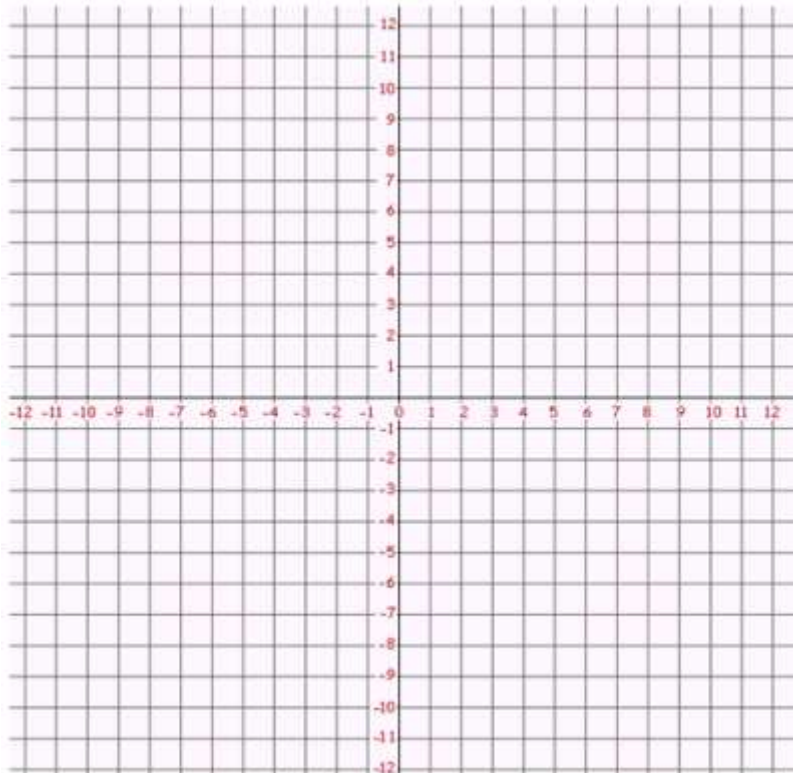
x							
y							

3.  $y = \sqrt{x-4}$

x							
y							

4.  $y = \frac{1}{3}x$

x							
y							



5. What do you notice about the equations that produce a linear graph? How are they different from an equation that produces a non-linear graph?