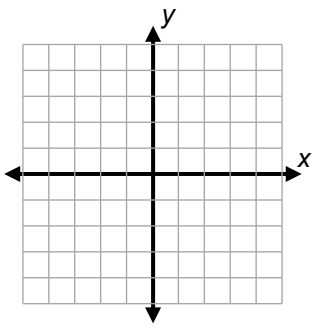
Name_____ Period _____ Date _____

8-4 TECHNOLOGY ACTIVITIES
GRAPHING EXPLORATION 1

Go to desmos.com and click "Graphing Calculator." Graph each set of linear functions, sketch the graphs, and answer the questions.

Set 1

$y = 2x$ $y = 2x + 1$ $y = 2x - 3$

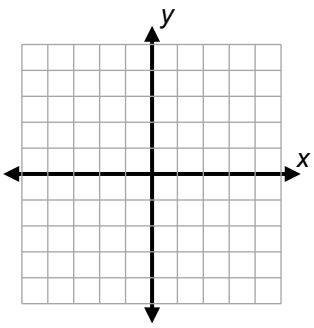


How are Set 1 lines the same?

Different?

Set 2

$y = -3x$ $y = -3x + 2$ $y = -3x - 1$

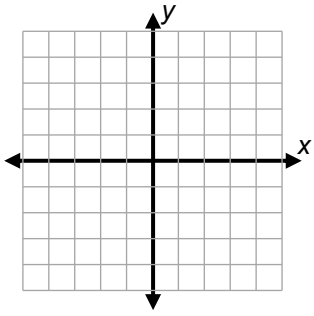


How are Set 2 lines the same?

Different?

Set 3

$y = 3x + 1$ $y = x + 1$ $y = \frac{1}{2}x + 1$

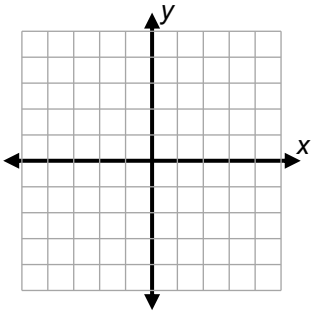


How are Set 3 lines the same?

Different?

Set 4

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



How are Set 4 lines the same?

Different?

Name_____ Period _____ Date _____

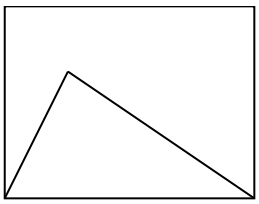
8-4 TECHNOLOGY ACTIVITIES
FUNCTION CARNIVAL RATE GRAPHS

Go to student.desmos.com and do the Desmos activity called Function Carnival.

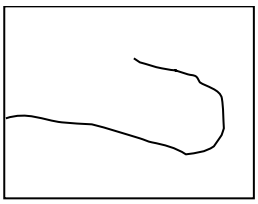
1. Here are some student sketches of the Cannon Man graph, the Bumper Car graph, and the Ferris Wheel graph. Maybe you did a better job than these students.

   a. Which of these could be the graph of a function? Explain.
   b. Which of these graphs show increases? Decreases? Explain.
   c. Which of these graphs appear to be linear? Nonlinear? Explain.

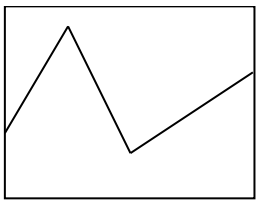
Cannon Man
(height off ground vs time)



Bumper Car
(distance traveled vs time)



Ferris Wheel
(height off ground vs time)



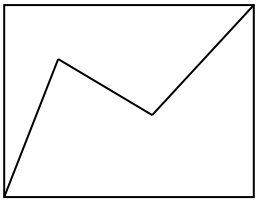
2. Draw sketches for the following. **Notice that changes have been made to the variables.**

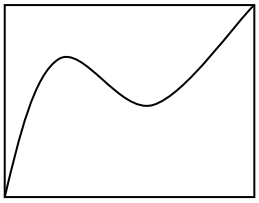
Cannon Man
(distance vs time)

Bumper Car
(speed vs time)

Ferris Wheel
(distance vs time)

3. Look at the following two graphs below. Describe how they are different. Describe how they are the same. Use vocabulary like on **Practice 5** in **Packet 4**.
4.





5. Make up the same scale for the axes in the graphs above and estimate appropriate ordered pairs for each graph (like on **Practice 5** in **Packet 4**).