Getting Ready

Open a web browser. Go do to www.desmos.com. Launch the calculator.

Restricting the Domain

Type these three expressions in the expression list:

$$y = x\{x \geq 0\}$$

$$y = 2x\{0 \leq x \leq 3\}$$

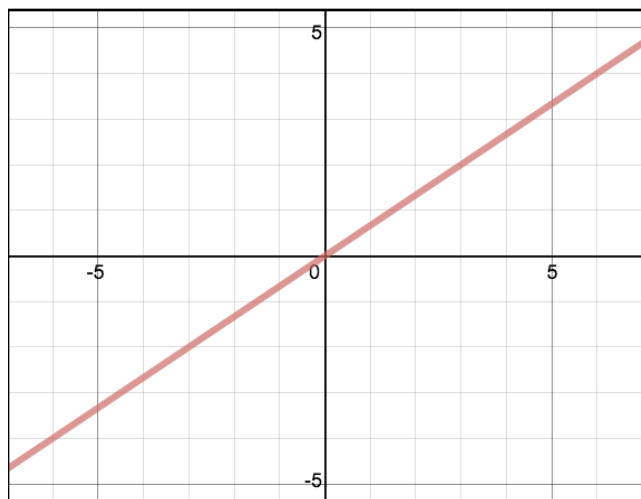$$y = -\frac{1}{3}x\{-6 \leq x \leq 6\}$$

Make some mental notes (or notes on paper) for what happens to the graph as a result of the inequalities in the curly braces.

(Note: You can access curly braces on the Desmos keyboard, or by pressing shift + [on the computer's keyboard. The square brackets are right next to the letter p.)
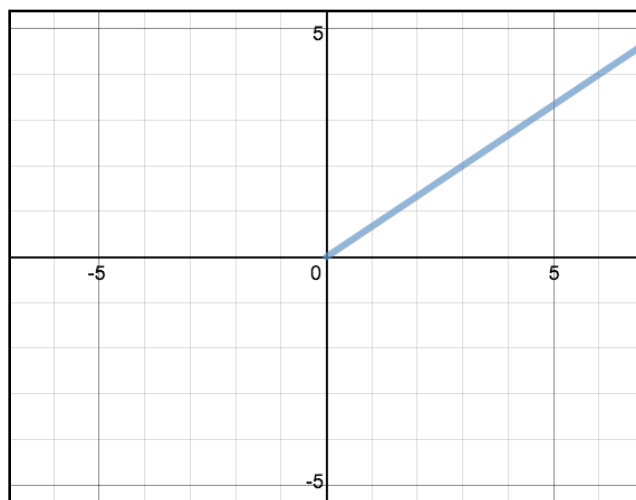
Challenge 7

Can you make this graph using Desmos?

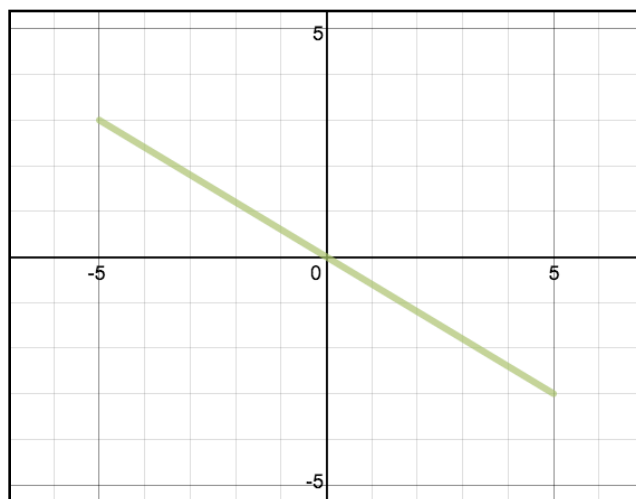If you're able to make this graph using Desmos, write your equation here.

Challenge 8

Can you make this graph using Desmos?

Write your equation here.
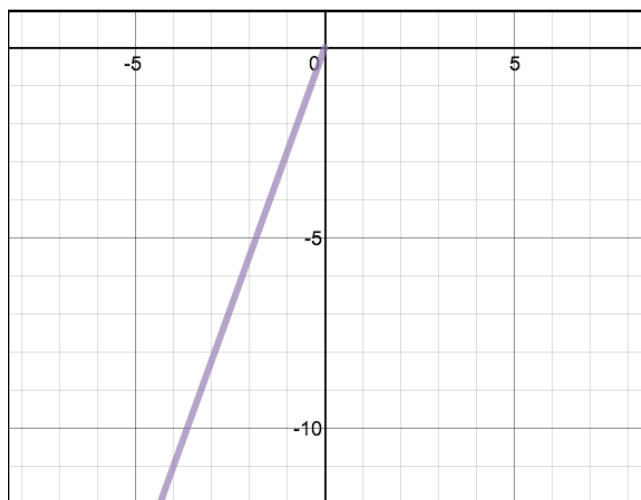
Challenge 9

Can you make this graph using Desmos?

Write your equation here.

Challenge 10

Can you make this graph using Desmos?
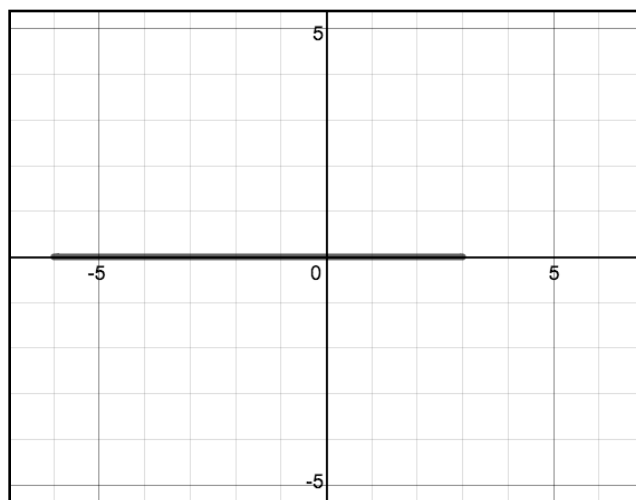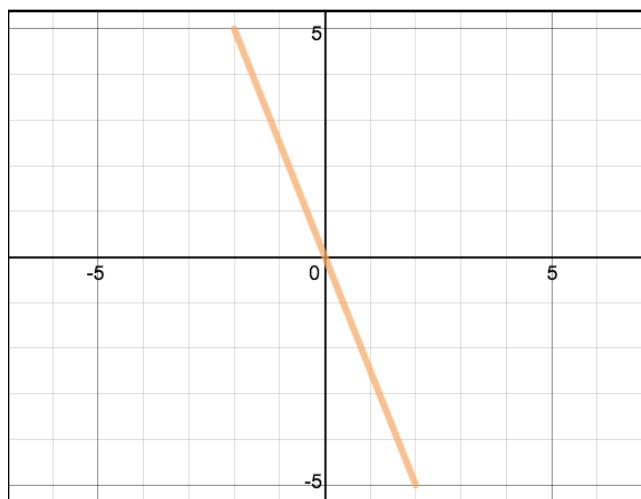
Write your equation here.

Challenge 11

Can you make this graph using Desmos?

Write your equation here.

Challenge 12

Can you make this graph using Desmos?

Write your equation here.

What Have You Noticed?

Write a summary of the things you've noticed over the course of solving this set of challenges.