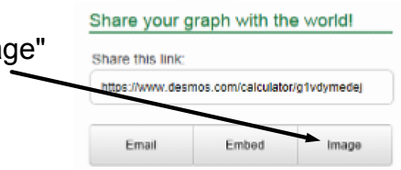
Line Graphing Assignment Using Desmos

Submit your assignment by copying images of your graphs into Microsoft Word.

> Use the print-screen option (Fn & F11) or

> Click the "share" button:

> Choose "Image"



> Then copy and paste the image that appears into Word.

> Label the image!

Example: Draw a perfect square centered at (0,0) that is 6 units long.

1st input: $x=3\{-3\leq y\leq 3\}$ this only draws the line between -3 and 3

to get the ≤ symbol, type <= and it will change automatically

2nd input the rest. All of them are:

$x=3\{-3\leq y\leq 3\}$

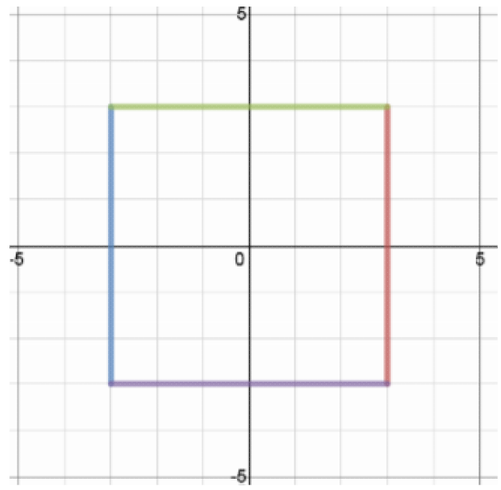
$x=-3\{-3\leq y\leq 3\}$

$y-3\{-3\leq x\leq 3\}$

$y=-3\{-3\leq x\leq 3\}$

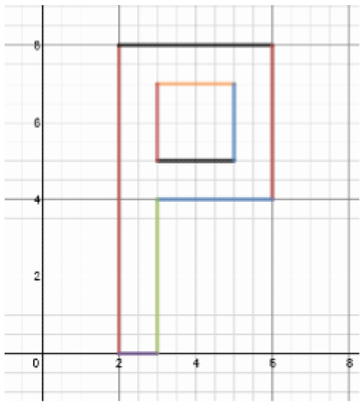
Results in:

Change colours to your preference.



Part 1: Horizontal & Vertical Lines

1. Draw a perfect square centered at (0,0) that is 10 units long.
2. Draw a perfect square centered at (-3,4) that is 8 units long.
3. Draw a rectangle with a perimeter of 26 units.
4. Draw a rectangle with an area of 48 units^2 (cannot be a square).
5. Choose one of the following letters and graph it as a block letter 8 or more units high (see example to the right): E, S, B, H, or F.



Part 2: Exploring Linear Relations

1. Enter the following three equations:
   > y = 2x - 5
   > y = 2x + 5
   > y = 2x
   > Do the lines cross? What does this tell you about lines that have the same slope?
2. Remove the equations from #1 and enter the following two:
   > y = 2x + 3
   > y = x/m - 2 (it will ask to make "m" a slider - do this)
   > Adjust the value of "m" until the two lines cross at a 90 degree angle. What is this value of "m"?
3. Do as in #2 for the following:
   > y = -4x - 3
   > y = x/m - 1
   > What value of "m" makes the two lines perpendicular?
4. Do as in #2 for the following:
   > y = x/3 - 5
   > y = mx + 5
   > What value of "m" makes the two lines perpendicular?
5. Do as in #2 for the following:
   > y = -x/5 + 1
   > y = mx - 4
   > What value of "m" makes the two lines perpendicular?
6. What is the general rule for finding the slope of a perpendicular line to y = mx?