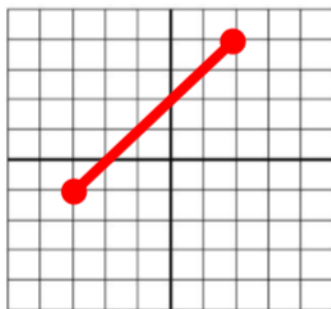


When you graph the linear equations below, they will result in a picture! In this case, instead of giving you lines, they'll give you line segments, because the last part of the equation tells you the domain that you need to use. So for example, if I told you to graph the equation $y = x + 2$ for $\{x | -3 \leq x \leq 2\}$, I am telling you to graph the line $y = x + 2$ for the set of all x such that -3 is less than or equal to x and x is less than or equal to 2 . This is called "set-builder notation." The easiest way to do it is to create a table of values using the two "extreme" numbers (the ones in the front and the back of the inequality) as x , and then graph only the portion of the line between those two points. The example above would look like this:



So the first step is to print out some graph paper. I've put a graph on the page 2 of this document, but if you have a piece of graph paper (or even can make a graph – make sure your lines are straight and evenly spaced; the graph should go from -8 to positive 8 on both axes) you can use that. Then graph all of the equations below. Note that lines like $x = 5$ (which has an "undefined" slope) don't give a domain (because the domain of $x = 5$ is always just 5 !). Instead it gives you a range. When you're done, send me a copy of your picture!

$$y = x + 7 \text{ for } \{x | -3 \leq x \leq 0\}$$

$$y = -\frac{1}{2}x - 3 \text{ for } \{x | -6 \leq x \leq -4\}$$

$$x = 0 \text{ for } \{y | 4 \leq y \leq 5\}$$

$$y = -7x + 53 \text{ for } \{x | 7 \leq x \leq 8\}$$

$$y = -3 \text{ for } \{x | 3 \leq x \leq 6\}$$

$$y = x + 2 \text{ for } \{x | -2 \leq x \leq -1\}$$

$$y = -x + 12 \text{ for } \{x | 5 \leq x \leq 7\}$$

$$y = -x + 5 \text{ for } \{x | 0 \leq x \leq 1\}$$

$$x = -7 \text{ for } \{y | 1 \leq y \leq 3\}$$

$$y = -3x - 1 \text{ for } \{x | 0 \leq x \leq 1\}$$

$$x = 2 \text{ for } \{y | -2 \leq y \leq 2\}$$

$$y = 3 \text{ for } \{x | -7 \leq x \leq -6\}$$

$$y = 0 \text{ for } \{x | -6 \leq x \leq -2\}$$

$$x = -6 \text{ for } \{y | 3 \leq y \leq 4\}$$

$$y = x - 9 \text{ for } \{x | 6 \leq x \leq 7\}$$

$$y = -x \text{ for } \{x | 2 \leq x \leq 3\}$$

$$y = x + 10 \text{ for } \{x | -7 \leq x \leq -6\}$$

$$x = 7 \text{ for } \{y | -2 \leq y \leq 5\}$$

$$y = 4 \text{ for } \{x | 0 \leq x \leq 1\}$$

$$y = -1 \text{ for } \{x | -4 \leq x \leq 0\}$$

$$y = -x - 6 \text{ for } \{x | -7 \leq x \leq -6\}$$

$$y = 4 \text{ for } \{x | -6 \leq x \leq -3\}$$

$$y = 7 \text{ for } \{x | 0 \leq x \leq 5\}$$

