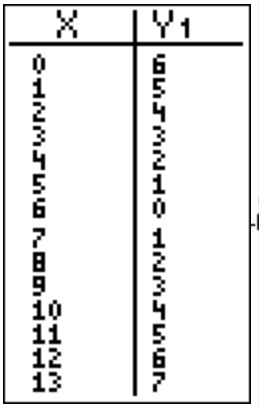
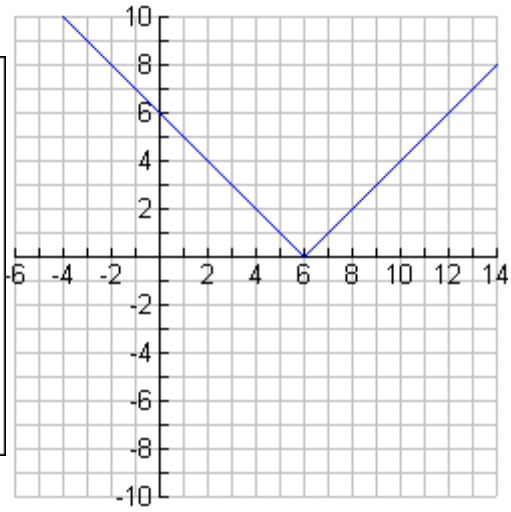
PRACTICE SOLVING WITH TABLES AND GRAPHS

Let's practice solving equations and inequalities by using tables and graphs

1. To solve $|x-6| \geq 4$, Joe entered the equation $y_1 = |x-6|$ into his calculator to get the following table and graph.



X	Y1
0	6
1	5
2	4
3	3
4	2
5	1
6	0
7	1
8	2
9	3
10	4
11	5
12	6
13	7

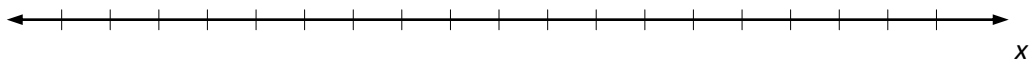


- Explain how Joe can use the table to solve $|x-6| \geq 4$.

- Explain how Joe can use the graph to solve $|x-6| \geq 4$.

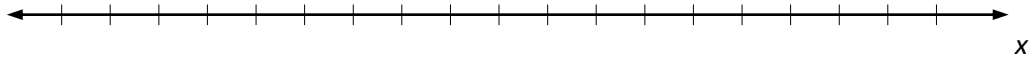
- What is the solution to $|x-6| \geq 4$?

- Graph your solution on a number line.

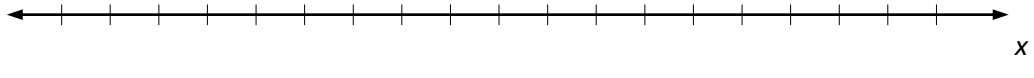


2. Using the table and graph above, solve the following. Create a number line showing each solution.

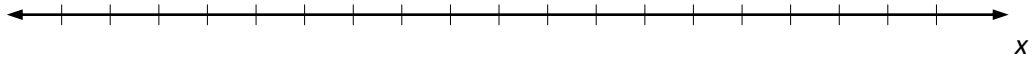
- $|x-6| \leq 2$



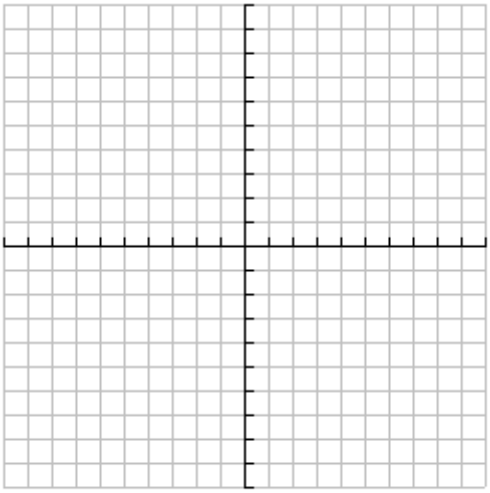
- $|x-6| \leq 8$



- $|x-6| > 1$



3. Create your own graph to help find solutions to the following.



- $|x+5| \leq 6$

  Solution:

- $6 < |x+5|$

  Solution:

- $|x+5| > 3$

  Solution:

4. Create your own table to help find solutions to the following.

- $|x+80| = 40$

  Solution:

- $10 < |x+80|$

  Solution:

- $|x+80| \leq 25$

  Solution:

- $|x+80| < -10$

  Solution:

5. Using your calculator's table or graph, find solutions to the following.

- $3|k+7| < 21$

  Solution:

- $2|m+3|+5 \leq 19$

  Solution:

- $-4|p-6|+5 \geq -19$

  Solution: