Warm-Up

Answer the following questions about the data below:

3	6	17	12	5
2	-6	7	23	6

1. Write the equation for the line of best fit.
2. What is the correlation coefficient for the line of best fit? What does that mean about the data?
3. Use the line of best fit to predict the value of y when x = -2. Is that interpolation or extrapolation?
4. What is the slope of a line parallel to the line of best fit? Perpendicular? (round to the nearest tenth)

Homework Check

Announcements

- Test next Tuesday
  - 25 multiple choice questions from Unit 5 and Unit 6
    - Slope
    - Direct Variation
    - Slope Intercept Form
    - Point Slope Form
    - Standard Form
    - Parallel and Perpendicular Lines
    - Scatter Plots and Trend Lines
    - Absolute Value Graphs
- Unit 5 test corrections due next Monday

Announcements

- Today we will talk about absolute value graphs
- Tomorrow will be a review day - you can work on test corrections, study guide, ask me questions… use this time to benefit you and do not waste this opportunity!
- Next Monday will be another review day

Absolute Value Graphs

11/19/2018

Parent Function

Parent Function - The graph of the original function

All functions are a translation or transformation of the parent function
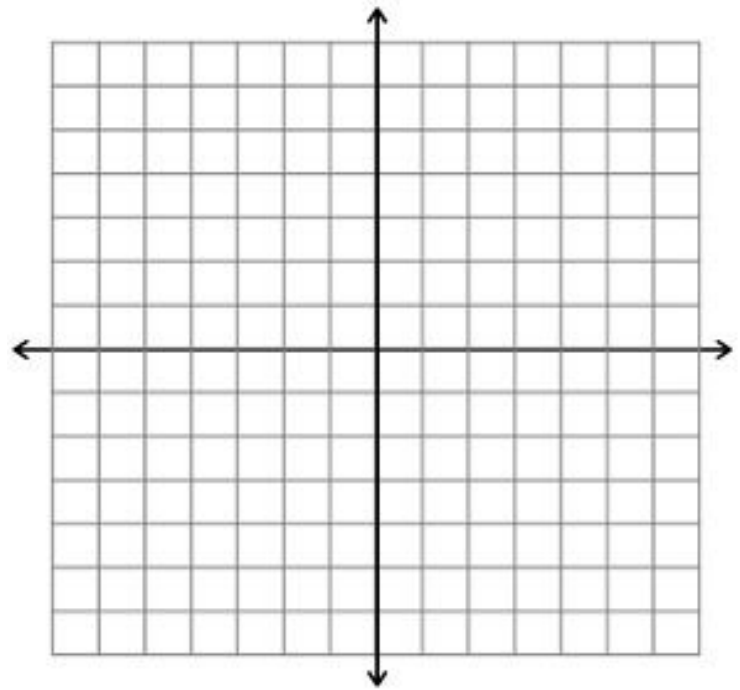
Examples:

$y=x$ $\qquad$ $y=x^2$ $\qquad$ $y=x^3$ $\qquad$ $y=|x|$

Today we are focusing on absolute value

Parent Function for absolute value → y=|x|

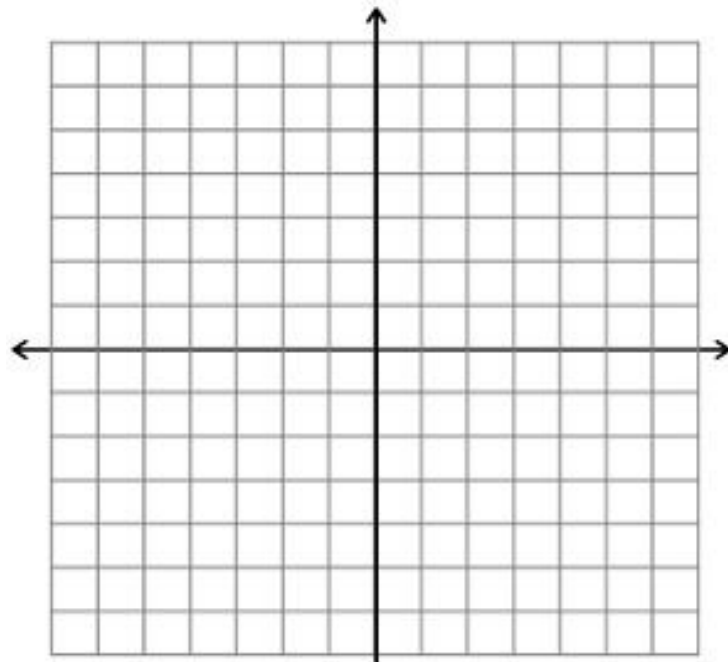|	

What happens when I add a value outside of the absolute value bars???

f(x) = |x| + k
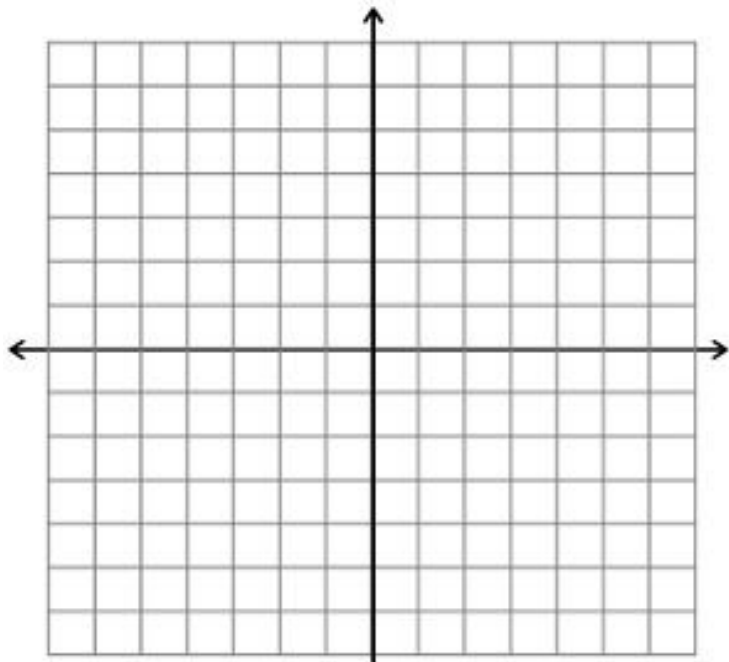
f(x) = |x| + 2   f(x) = |x| - 4
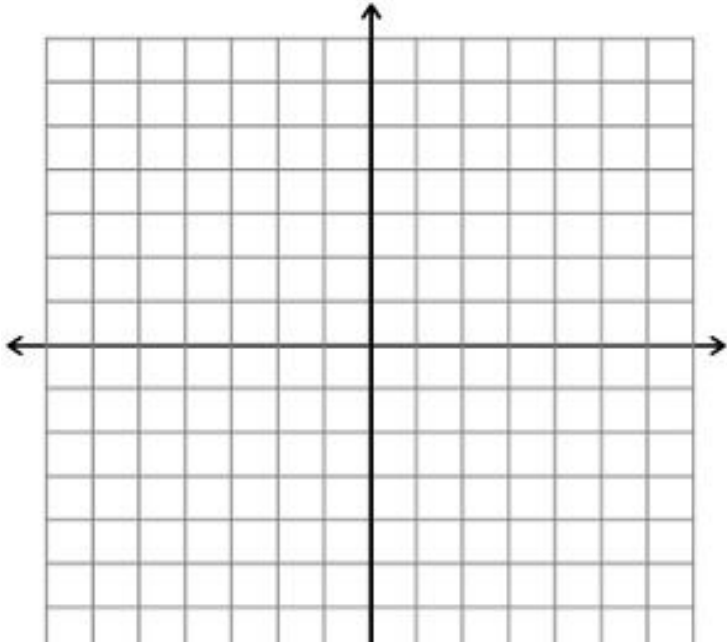
So a rule...

When adding outside of the absolute value bars,
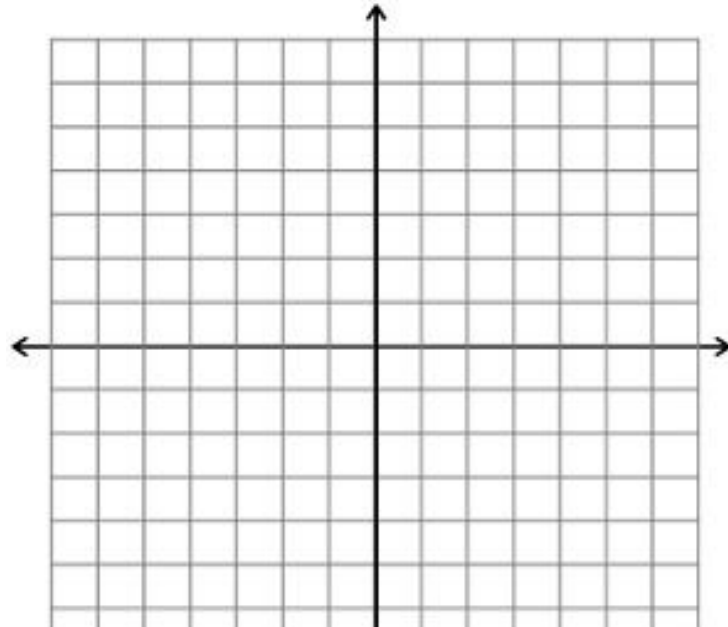
When subtracting outside of the absolute value bars,

What happens when I add a value inside of the absolute value bars???

f(x) = |x+h|

f(x) = |x-3|

f(x) = |x+1|

So a rule...

When adding inside of the absolute value bars,

When subtracting inside of the absolute value bars,

The rules are super helpful...

If I want to visualize y = |x+3|, I know it looks like the parent function y = |x| shifted 3 units to the left.

But if you forget the rules…

You can always graph anything with an x and y table! Use the table to make your graph, and compare it to what the parent function looks like.

Absolute value on your calculator

MATH > Abs(

Practice - IXL

tinyurl.com/nu2hvz8

Homework

Page 345 #6-36 Even

Optional - Want to start preparing for your Chapter 5 Test on Tuesday? Check out the Chapter 5 Review on Page 349-352!