

Transformations

Definition: Any change to the position or size of an object

Three types:

1. Reflection (flip):

Sign \rightarrow negatives

X-Axis	Y-Axis
Outside	Inside
Opposite y-values	Opposite x-values

2. Stretch/Shrink:

Sign \rightarrow (\times, \div)

Horizontal	Vertical
Inside	Outside
X-values	Y-values
opposite	Do what it says

3. Translations (Slide):

Sign \rightarrow ($+, -$)

Horizontal	Vertical
Inside	Outside
X-values	Y-values
Opposite	Do what it says

Calculator Steps for Scatter Plots

Step 1: Enter data into calculator

- Hit the "STAT" button
- Hit "Edit..."
- Type values into L_1 and L_2

Step 2: Turn on Scatter Plot

- Hit "2ND" button
- Hit "Y=" button (With the 2ND button it's called STAT PLOT)
- Hit "ENTER"
- Turn Plot "ON"
- Hit "ZOOM" button
- Hit number "9" button

Step 3: Create Line of Best Fit

- Hit "STAT" button
- Scroll right to "CALC"
- Hit the number "4" button (LinReg (ax+b))

Step 4: Get Regression Line to Show up on Scatter Plot

- Hit "Y=" button
- Hit "VARS" button
- Hit number "5" button (Statistics...)
- Scroll right to "EQ"
- Hit "ENTER" button (RegEQ)
- Hit "GRAPH" button

Step 5: Make Prediction

- Hit "2ND" button
- Hit "TRACE" button (with 2ND button it's called CALC)
- Hit "ENTER" (Value)
- Enter X value and hit "ENTER"
 - o NOTE: MAY HAVE TO ADJUST GRAPH WINDOW!!!!
- To predict Y value:
 - o Hit "Y=" button and enter Y value for Y_2 .
 - o Hit "GRAPH" button.
 - o Hit "2ND" button
 - o Hit "TRACE" button (with 2ND button it's called CALC)
 - o Hit number "5" button (Intersect)
 - o ONLY using RIGHT and LEFT arrows, put cursor on intersection.
 - o Hit "ENTER" button 3 times.

Perfect Squares

1
4
9
16
25
36
49
64
81
100
121
144
169
196
225
256
289
324
361
400
441
484
529
576
625

Perfect Cubes

1
8
27
64
125
216
343
512
729
1000

Perfect Fourths

1
16
81
256
625

Perfect Fifths

1
32
243
1024
3125