Need:

- **NEW graphing sheet**
- **Marker**
- **Eraser**
- **Calculator**

Finding the EXACT line of best fit using the TI-nspire

- If you are using your own calculator for TNReady, try to figure out how it works on yours. It will likely be a similar process.

On your graphing sheet…

- Make a scatter plot using the following data (watch your positives and negatives):
- GUESS where the line of best fit is and draw it in. Be precise and try to draw it as straight as you can.
- Also, predict what you think the correlation coefficient is. Write this somewhere on your graph (For example: r = -0.2)
- We are now going to use the calculator to **DEFINITIVELY CALCULATE** the line of best fit.

x	y
-8	-4
-7	-2
-5	-2
-4	1
-4	3
-3	-3
-2	0
-1	5
0	0
0	2
1	4
2	2
3	5
6	4

- https://www.youtube.com/watch?v=ooDBTYahdQE

- Line of best fit generator:
  http://illuminations.nctm.org/Activity.aspx?id=4186

The line of best fit

- It says "m" is about 0.57
- It says "b" is about 1.97
- So our line of best fit is **y = 0.57x + 1.97** (rounded)
- This is pretty tough to graph…but I will show you exactly where it is so that you can see how close you were

- Also, find the value of "r" (not r^2). That is the correlation coefficient.

x	y
-8	-4
-7	-2
-5	-2
-4	1
-4	3
-3	-3
-2	0
-1	5
0	0
0	2
1	4
2	2
3	5
6	4

To see the scatter plot on your calculator

- Go back into the "x" column
- Go to menu → Data → Quick Graph
- The "x" will be plotted, then select the y-axis and choose "y" from the list
- If you want to see a bigger version, go back to "home", then click on the bar-graph icon under "Add page to: New Document"
- Click each axis and select the appropriate variable (x and y)
- To see the line of best fit, go to menu → analyze → linear regression

Another one

- Make a scatter plot using the following data:
- Guess the line of best fit and the correlation coefficient
- **y = -0.36x + 1.52** (rounded)

- **r = -0.49**

x	y
-8	3
-6	8
-5	5
-4	-1
-4	3
-1	4
0	-1
2	-4
3	1
4	5
6	-4
8	1