Name: _____   Date: _____
Statistics Day 2 – Measures of Center and Spread

Do Now:

1. The amount of runs that the Yankees scored in each game of the American League Championship Series this year were the following:

> **Game 1** – 1 run
> **Game 2** – 1 run
> **Game 3** – 8 runs
> **Game 4** – 6 runs
> **Game 5** – 5 runs
> **Game 6** – 1 run
> **Game 7** – 0 runs

0, 1, 1, ①, 5, 6, 8

Using your understanding of measures of center and spread from yesterday's lesson, find the following pieces of information about the **runs scored** according to the above data set (round your answers to the nearest whole number):

Mode: __1__   *Most Often*

Mean: __3__ $\frac{22}{7} = 3.14\dots$

Median: __1__

Range: __8__ $8 - 0 = 8$

<u>Great</u>! Now, wouldn't you agree that it can be a bit tedious to figure out this information? Mostly because in order to find the measures of center and spread you need to organize your data from smallest number to largest number. And this can be **especially** difficult when there is a large data set.

Alas! There is another way... 🙌

The Calculator!

We will use the calculator in order to acquire the following information that helps to describe our data set: mean, median, minimum value, maximum value, Q1, and Q3.
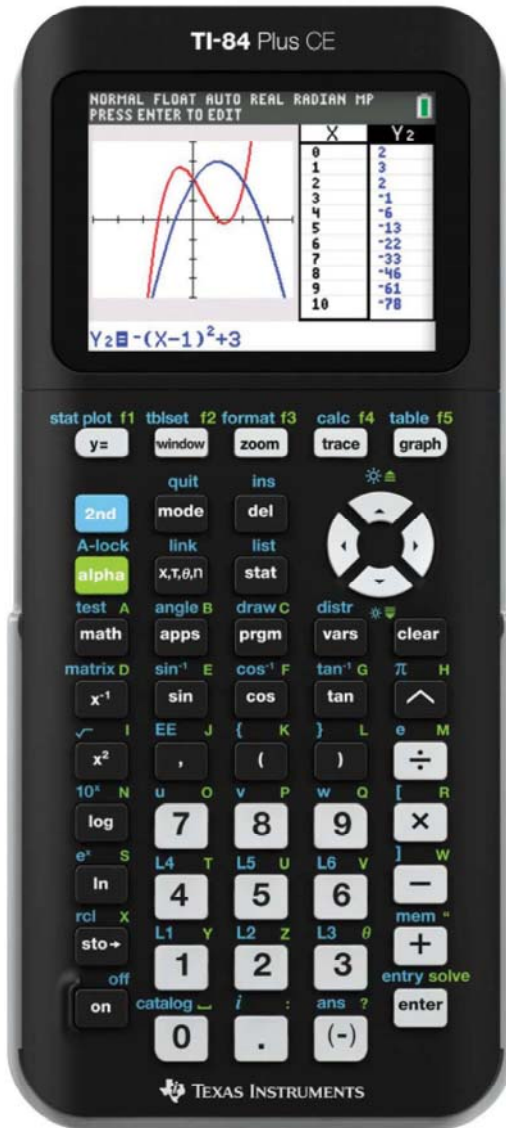
Steps in order to find the measures of center and spread using the TI-84:

1. Press the stat button.

2. Press enter in order to select 1:Edit…

3. Under L1, begin to enter your data. Once you type a number in, press enter in order to enter another number until you are finished. Let's enter in the same data from the Do Now so you can see how fancy this calculator trick truly is: 1, 1, 8, 6, 5, 1, 0.

4. Press the stat button again.

5. Using the **right** arrow key, scroll over to CALC. Press enter in order to select 1:1-Var Stats.

6. Scroll down and select **Calculate**.

What did we find out? **Take note**, there are only certain pieces of information that we are going to record today. We'll get to some of the other information that the calculator tells us later…

Round to the nearest whole number if necessary.

$\bar{x} = \underline{3}$ MEAN

$n = \underline{7}$

$minX = \underline{0}$

$Q1 = \underline{1}$

$Med = \underline{1}$

$Q3 = \underline{6}$

$maxX = \underline{8}$

2

We shall now put our calculator skills to the test using our own data! But that data must be acquired.

Student- Matt
1st Throw Score: 0
2nd Throw Score: 1

Student- Aaron
1st Throw Score: 0
2nd Throw Score: 1

Student- Malachi
1st Throw Score: 1
2nd Throw Score: 0

Student- Sean
1st Throw Score: 0
2nd Throw Score: 1

Student- Evan
1st Throw Score: 2
2nd Throw Score: 0

Student- Angelica
1st Throw Score: 9
2nd Throw Score: 0

Student- Ms. Bloom
1st Throw Score: 6
2nd Throw Score: 1

Student-
1st Throw Score:
2nd Throw Score:

Student- Saleh
1st Throw Score: 7
2nd Throw Score: 6

Student- Tommy
1st Throw Score: 9
2nd Throw Score: 3

Student- Roberto
1st Throw Score: 0
2nd Throw Score: 6

Student- Joe
1st Throw Score: 0
2nd Throw Score: 4

Student- Hannah
1st Throw Score: 4
2nd Throw Score: 0

Student- Mr. V
1st Throw Score: 10
2nd Throw Score: 6

Student-
1st Throw Score:
2nd Throw Score:

Now You Try! Using the data we acquired from our bean-bag toss, find the following information using your calculator (when necessary round to the nearest whole number):

$\bar{x}$ = __3__

n = __26__

minX = __0__

Q1 = __6__

Med = __1__

Q3 = __6__

maxX = __10__

IQR = __6__ $Q_3 - Q_1 = 6 - 0 = 6$

✓ To conclude, list 2 reasons why the strategy of using the calculator is a great way to find the measures of center and spread:

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