Tack Toss

In this experiment, you toss 10 tacks at a time, and your partner will record your results. After ten tosses, switch jobs, and perform ten more tosses. Predict the probability of the tack landing points up **<u>BEFORE</u>** you start, put prediction in #1 on page 2.

Series	Number of Tacks with Points up
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
Total for 20 tosses:	

Fraction of tacks with points up: _____

200

1. Predict the probability of points up: _____

2. What was your actual percent of points up: _____

3. How close is your prediction to your actual? _____

4. As a class create a line plot of experimental probabilities by either method:

   a) Putting your probability on a sticky note and place on the wall chart.
   b) Using Navigator's Activity Center enter your probability and your total "points up"

   Sketch the line (frequency) plot.

5. From the line plot what is the most likely probability of "Points Up"? _____

6. Using the class total points up data what is the probability of a tack landing point up? Explain why. _____

Tack Toss
TEACHER NOTES

1. Each student pair will need 10 tacks and a Dixie cup
   a. Have students follow the directions on the worksheet to find their fraction of tacks with points up and the percent of points up.
   b. Load Activity Center settings: Tacks.act – File – Load – Load Activity settings.
   c. Start Activity and open the Frequency Plot. Have students enter their actual probability of points up and total number of points up. Probabilities will appear in Frequency Plot and data will collect in "Prob" & "Point" lists.
2. Use Navigator to send both lists back to students (lists will be under "collect" folder in class)
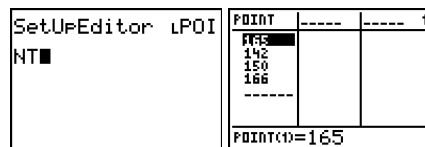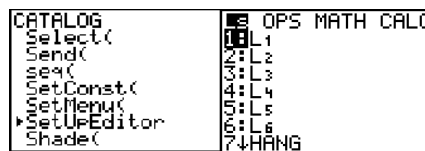
3. Working with the lists:
   a. Put "Point" into list screen
      1. SetUpEditor

         -In "Home" screen

         -2nd PRGM - arrow down to SetUpEditor

         -2nd LIST - Arrow down to Point ENTER
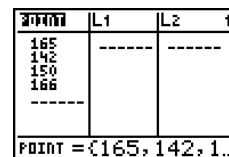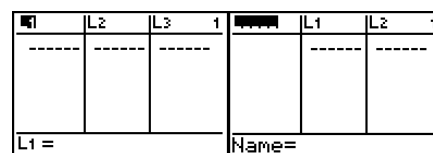
      OR

      2. List Screen

         -LIST - arrow up to name

         - 2nd DEL - to insert a new list

         - 2nd LIST - Arrow down to Point ENTER ENTER
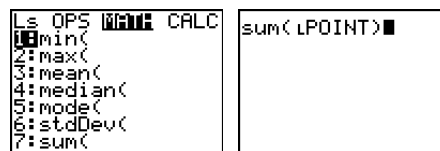
   b. Use the Sum feature to total up all points up
      -Go to Home screen

      - 2nd LIST MATH – choose 7: SUM(

      -Put in Point list as before

   c. Do a Navigator Screen Capture to make sure everyone is on the same page.