# Probability Simulations App

For the TI-83 Plus and TI-73 Explorer™
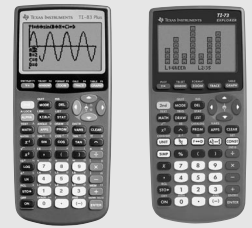
Getting Started - Tossing Coins

Explore probability theory with interactive animation that simulates the rolling of dice, tossing of coins and generating random numbers. Evaluation options include bar graphs, table of trials data, settings for specifying number of trials, ways to collect data and weighting. In addition, students can export data for further exploration.
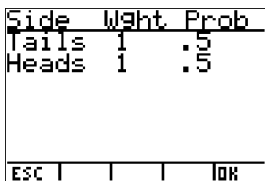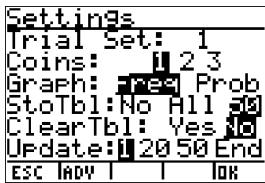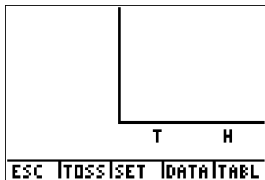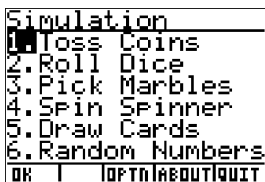
1

With the handheld turned on, press APPS and select ProbSim.

2

Select the type of simulation. For this example, select 1. Toss Coins.

3

For this Application, the following key commands are used. Press: <ESC> to move to previous screen. <TOSS> to toss one coin and access more tosses. <SET> to get to the Settings screen (see below). <DATA> to store the collected data to a list. <TABL> shows a table of the trials, <GRPH> toggles.

4

Change these settings depending on what values are needed for the simulation. Press <ADV> from the Settings screen to change the weight of the coins.

5

Currently, the coins are equally weighted. Press <OK> when have the settings and weight for the simulation are appropriate. Next, press <TOSS>.
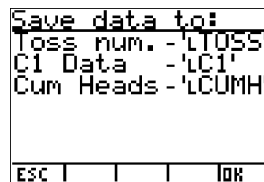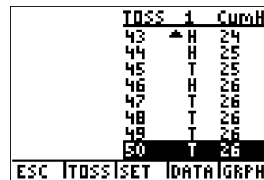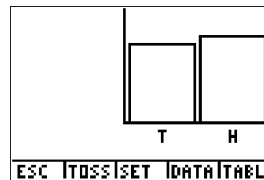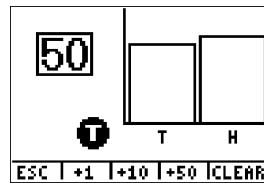
6

One coin will toss. Now, press <+1>, <+10> or <+50> depending on the data to be collected. The Frequency Graph updates as the coins toss. Press <ESC> when finished tossing the coins for this simulation.

7

Next, examine the table <TABL> or use <DATA> to store the data into lists.

8

Press <TABL> to see the value for each toss and the cumulative number of heads for the number of trials.

9

Press <DATA> to store the data to lists, which can be accessed later in the List Editor. The values of 0 for Tails and 1 for Heads are stored in list LC1.

10

Next, quit the App, <OK>,< ESC>, <YES>, <QUIT>, <YES>. Follow the prompts on each screen to exit the App. Make sure the data is saved to lists as shown above so the simulation remains in memory when the handheld is turned off.