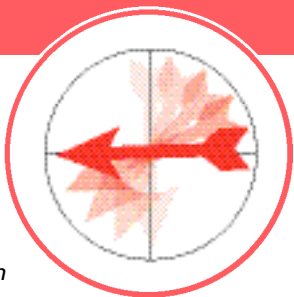


What are the Chances?

Investigate probability theory using the Probability Simulation App.

Before you begin, you will need the Probability Simulation App loaded on your TI-73 Explorer™. Read the instructions and download the App from education.ti.com/apps



Engage

1. Turn on your TI-73 Explorer and press **[APPS]**
2. Scroll down to find Prob Sim and press **[ENTER]**
3. Press any key to go through the beginning screen

Explore

1. Press **[4]** for 4. Spin Spinner
2. Select **<SPIN>** (**[WINDOW]**) to spin the spinner once
3. Press **<+10>** (**[ZOOM]**) to spin the spinner 10 times
4. To find out how many times the spinner landed on 3 in the 11 spins, press **<ESC>** (**[Y=]**) and then **<TABL>** (**[GRAPH]**)
5. Look at the table and count the number of times the spinner landed on the number 3

Continued on back

APPLICATIONS
1:Link...
2:AreaForm
3:EXPORAW
4:GEOBOARD
5:NUMLINE
6:Prob Sim
7:RRampage

Probability Simulation
Version 4.1
© 2004 Corvus Taylor Rusty Wagner
PRESS ANY KEY

Simulation
1.Loss Coins
2.Roll Dice
3.Pick Marbles
4.Spin Spinner
5.Draw Cards
6.Random Numbers

4	SPIN	SECTION
43	▲	3
44		4
45		1
46		1
47		2
48		4
49		1
50		1

OK | OPTN | ABOUT | QUIT

ESC | SPIN | SET | DATA | GRAPH

What are the Chances?

Extend

All four sections have equal areas, so the chances of landing on any one number are equally likely. What would happen if we changed the area of one of the sections to make it larger?



1. Press <SET> (ZOOM) to see the Settings menu
2. Select <ADV> (WINDOW) and change the weight of section 3 to 2
3. Press GRAPH twice to return to the spin screen
4. Write out the probability of the pointer stopping in each section when all the weights are 1
5. What is the probability of the pointer stopping on 3 now that you've changed the weight of that section to 2?
6. Follow steps 2–5 in the Explore section to see whether your answer was correct
7. Press <ESC> (Y=) and then press <YES> (Y=) again to return to the Home screen
8. Use the Probability Simulation App to Toss Coins or Draw Cards