

Introduction: In this activity, we will explore probability by tossing coins (not at each other). This project will tie into our **thematic unit**, "Calculate It". You will have a chance to analyze some charts and also to explore a part of your calculator that not everyone knows about! . This will hopefully be a fun and exciting adventure for you!

Directions: On the TI-84 calculator under applications (APPS) go to the Probability Simulation(Prob Sim) application. Do your model with the coin toss.

- 1.Begin with tossing the coin 10 times.
- 2.Record your data on the spreadsheet of the 10 coin tosses.
- 3.Clear your results on your calculator.
- 4.Next toss the coin 25 times.
5. Record and then clear the data.
- 6.For the final toss, toss the coin 50 times. Record the data.

As you record the data in the spreadsheet you will see each respective number of tosses' graph change. Your fourth and final data and chart will be the data of all your tosses summed together. Once you have finished with your recording, look at the relationships of you data and also between your graphs.

Once you are done putting in your data print off worksheet and answer the questions under the graphs on separate sheet of paper.



10 Coin Tosses

Heads	3	Tails	7
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25 Coin Tosses

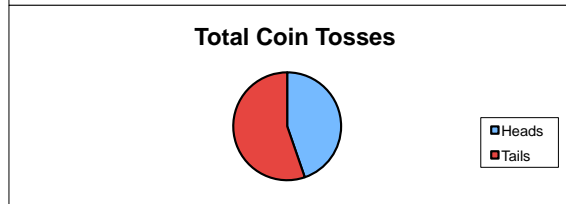
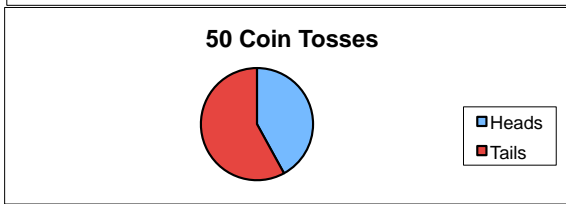
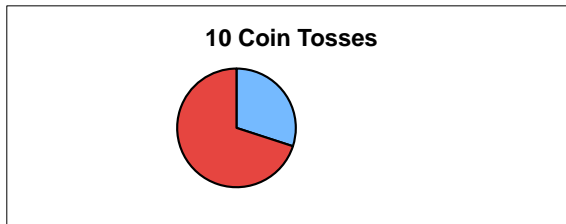
Heads	14	Tails	11
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50 Coin Tosses

Heads	21	Tails	29
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Total Coin Tosses

Heads	38	Tails	47
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Questions:

1. Compare and contrast all four graphs. How do you they correlate to each other?
2. Could doing this on a calculator be just as random as flipping a coin on your own? Explain your reasoning.
3. As the graphs get more tosses in them, what do you see?
4. Do you think a pie chart best supports your data? Why or why not?