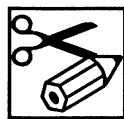


Marble Mania

Leader



Use statistics to predict what may happen in the future. (People in science, industry, and government use statistics in making predictions.)



You will need:

- One coin
- One box
- Three marbles—one red, green, and yellow



Do this:

- Ask the student “What is the probability of the coin landing on tails? On heads?”
- Tell the student that this probability may be expressed in several ways:

1 out of 2

1 to 2

$\frac{1}{2}$

1:2

- Toss the coin.
- Ask the student how many times we would need to flip the coin to be reasonably sure that it would be “heads” half the time.
- Explain that the *theoretical* probability of getting a “head” is $\frac{1}{2}$. The *experimental* probability is the number of heads divided by the total number of flips.



Student _____



Do this:

- Place the three marbles (one green, one red, and one yellow) in a box.
- Select one marble without looking into the box.
- Record the color in the table below.
- Put the marble back.
- Repeat at least 60 times.

	RED	GREEN	YELLOW	TOTAL
Number of Times Selected				

What is the probability of selecting a:	Experimental	Theoretical
Yellow marble?		
Green marble?		
Red marble?		



What is the probability of selecting a red or yellow marble? _____



WHAT I FOUND