

Four-color spins

In this experiment, you will be spinning the four-color spinner 20 times. As you can see, there are four possible outcomes (red, yellow, green, and blue).

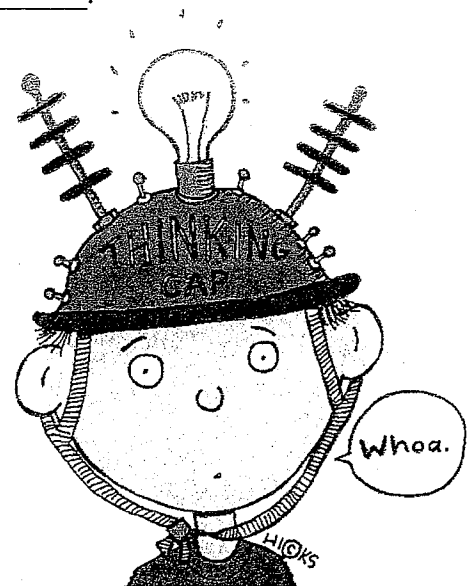
Use the table below to record your results. Mark an "x" in the appropriate column after each spin.

Start the experiment and **spin!!!!**

# of Spins	Red	Yellow	Green	Blue
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

after you have completed the experiment, answer the questions below with your group.

1. The sample space for the experiment of spinning the four-color spinner is _____.
2. The probability of spinning blue = _____.
3. The probability of spinning yellow = _____.
4. The probability of spinning red or a green = _____.
5. The probability of spinning a color whose word name contains the letter "e" = _____.
6. The probability of spinning a color whose word name is three or four letters = _____.
7. The probability of spinning a color that is not red = _____.
8. The probability of spinning a color whose word name contains the letter "r" = _____.
9. The probability of spinning blue and red = _____.
10. The probability of spinning green, yellow, and blue = _____.



1. Count the total number of spins that were red. How many spins were red? Record your results below by filling in the blanks.

$$\frac{\# \text{ of red spins}}{\text{total spins}} = \underline{\hspace{2cm}}$$

$$\frac{\# \text{ of blue spins}}{\text{total spins}} = \underline{\hspace{2cm}}$$

$$\frac{\# \text{ of green spins}}{\text{total spins}} = \underline{\hspace{2cm}}$$

$$\frac{\# \text{ of yellow spins}}{\text{total spins}} = \underline{\hspace{2cm}}$$

This is called **experimental probability** because you have performed the experiment. Find experimental probability in your textbook and record the definition on your vocab sheet.

2. Look at the spinner. What is the chance of spinning red? Give your answer as a fraction, decimal, and a percent.

3. What is the chance of spinning green? Blue? Yellow?

4. Is the outcome of spinning a red as likely as the outcome of spinning a green? Why or why not?

5. This is called **theoretical probability** because it relies only on the facts. Find theoretical probability in your textbook and record the definition of your vocab sheet.

6. Based on your findings, what is the difference between **experimental probability** and **theoretical probability**?

