

SPINNERS – THEORY vs. REALITY, Part One

Your teacher will give your team a spinner.
You will need to decide how to color the spinner so that it meets the following criteria.



40% should be red. 8
30% should be blue. 6
20 total spaces

$\frac{1}{10}$ should be yellow. 2
The rest should be green.

$\frac{20}{16}$
4 green

Work with your team to determine the theoretical probability of the spinner landing on each of the four colors (red, yellow, blue, and green). Express your answers as fractions and percents.

<u>Red</u>	<u>Blue</u>	<u>Yellow</u>	<u>Green</u>
40% $\frac{8}{20}$	$\frac{6}{20}$ 30%	$\frac{2}{20}$ 10%	20% $\frac{4}{20}$

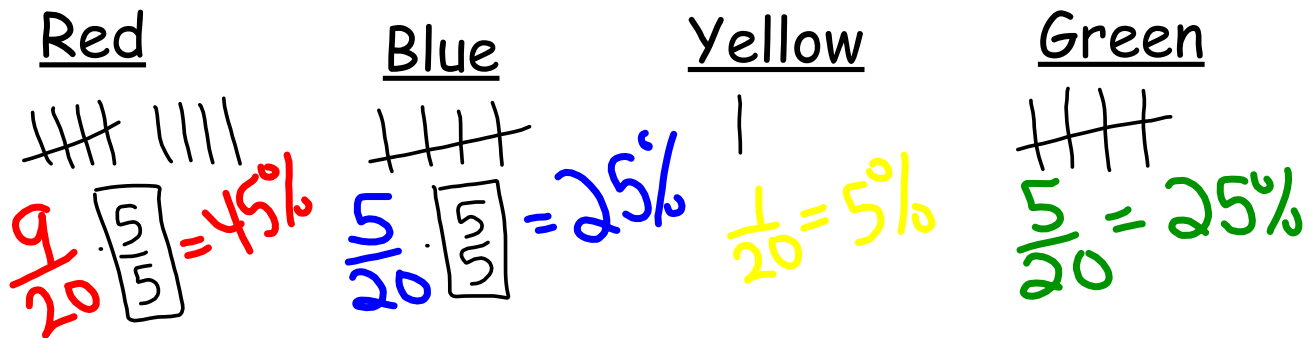
Theoretical Probability =
From math

Experimental Probability =
From an actual event

Spin 20 times

Theoretical Probability = *from our math*

- Each team does 20 total spins.
- Each team member writes the results.



Were the experimental and theoretical probabilities the same?

No

Experimental Probability = From an actual event

Was the experimental probability the same as the theoretical probability? *No*

Why or why not? *Theoretical is our best guess, but we can't predict exactly how spinner will go.*

1-56. LEARNING LOG

Write a Learning Log entry that explains how to find the probability of an event. Describe the difference between experimental and theoretical probability. Be sure to use examples to make your points clear. Title this entry "Probability" and label it with today's date.

