

M & M probability

Heading: _____

Important to know:

Theoretical probability: It is what SHOULD happen in a probability event based on calculation. (Example, if you roll a die six times, you should theoretically roll each number once).

Experimental probability: It is what DOES happen in a probability event based on what actually happens. If you roll a die six times, you could roll any combination of numbers.

Activity: (If there are 10 M&Ms in your bag, the fraction you create will always be out of _____. So, if you have 1 blue M&M, the chance of choosing it is 1/10.)

Chart your data: Open the bag without looking inside! Pull out one M&M and record what color it is. Continue to do this 10 times. Be sure to place the ones you pulled back into the bag after every pull

1 _____	2 _____	3 _____	4 _____
5 _____	6 _____	7 _____	8 _____
9 _____	10 _____		

Predict how many of each color M&M are in your bag based on your experiment (use your data to help your guessing)

Red _____ Orange _____ Yellow _____

Green _____ Blue _____ Brown _____

Check by dumping out your bag onto your desk. Record the actual results below
(As a fraction and percent)

Color	As a fraction	As a percentage
Red		
Orange		
Green		
Yellow		
Blue		
Brown		

How close was your prediction to your actual result?

Create a bar graph using your THEORETICAL probability data (the actual amount of each color M&M when you dumped them out).

