

Probability Review:

1.) A bag of marbles contains 7 red marbles, 8 green marbles, and 11 yellow marbles. Find each probability below:

P (red):

P (green or yellow):

P (red, then green) without replacement:

2.) There is a 30% chance for rain on Saturday, and a 60% chance for rain on Sunday. What is the probability that it will rain all weekend? (show your work)

3.) Maggie flipped a coin 20 times, and recorded the results in the box below:

H, T, T, H, T, T, H, T, T,
H, T, T, T, H, H, T, H, T,
T, H

Which is greater the experimental probability or theoretical probability of flipping heads? Explain, and use evidence.

4.) There are 35 cars in the parking lot. 12 cars are black, 10 are silver, 5 are blue, 5 are white, and 3 are green. If two cars are selected at random, what is the probability that both cars are black?

5.) A toy maker researched the amount of defected footballs. In one store, there were 20 perfect footballs, and 4 defected footballs. If you randomly selected 2 footballs, what is the probability that both of them are perfect?

6.) There are 14 pieces of candy in a bag. Four are broken. What is the probability of reaching into the bag and pulling out a non-broken piece?

7.) Maria flips a coin 20 times. The coin only lands on tails 9 times. According to theoretical probability how many more times would Maria have expected the coin to land on tails?

8.) On the spinner below, what is the probability of spinning a prime number and flipping a heads on the coin? Are these events independent or dependent?

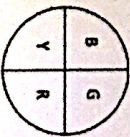


9.) Marvin has a bag of 20 marbles. 8 of the marbles are clear, 4 are blue, 5 are yellow, and 3 are black. What is the probability that Marvin will randomly pull 3 clear marbles out of the bag in a row if he does not replace the marbles after he pulls them?

10.) There is a 0.05 chance that we will have an earthquake this year. What is the probability that we will NOT have an earthquake?

11.) A spinner is divided into 4 equal sections. During a board game, Conner spun the spinner 12 times. The results are shown in the table below.

Color	# spins
Blue	5
Green	2
Yellow	1
Red	4



Theoretically, how many times would Conner have expected to land in each section? \_\_\_\_\_  
 How does the Theoretic probability of these events compare to the experimental probability? \_\_\_\_\_

12.) There are 40 children watching a magic show. 24 of the children are boys, and 16 of the children are girls. The magician needs to select 4 children to help him with his show. What is the probability that all 4 helpers will be girls? (Show all work)

13.) 80 percent of all California drivers wear seatbelts. If 4 drivers are pulled over, what is the probability that all 4 will be wearing their seatbelts?