

Name _____ Period _____

Probability of Simple Events

Theoretical vs. Experimental Probability

Probability is the measure of how likely an event or outcome is. It is usually written as a fraction. It can also be written as a percent and a decimal. The numerator of the fraction is the number of favorable outcomes; the denominator is the number of possible outcomes. You can describe the probability of an event with these words: certain, likely, unlikely, and impossible.

Give an example of each.

Certain: _____

Likely: _____

Unlikely: _____

Impossible: _____



4 green, 3 red, 2 blue, 1 yellow marble

What is the probability that the spinner will land on the number 2? _____

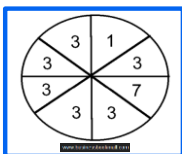
What is the probability that the die will land on an even number? _____

What is the probability that I will choose a green marble? _____

What is the probability of choosing a marble that isn't green? _____

This is called the complement. Complementary events are two events in which either one or the other must happen, but they cannot happen at the same time. The sum of the probability of an event and its complement is 1, or 100%.

What is the probability of spinning a 3? _____



1. Which of these is not accurate? _____
2. You can write probability as a fraction. True _____ or False _____
3. Probability can be zero. True _____ or False _____ What word can you use to describe the probability of zero? _____
4. Probability of flipping a coin and getting heads is: _____

Theoretical probability is based on uniform probability ----- what *should* happen when conducting a probability experiment. Experimental probability is based on relative frequency ----- what *actually* occurs during such an experiment.

5. What is the experimental probability of tossing the coin 15 times and getting tails?
Outcomes: _____ Experimental Probability _____
What is the theoretical probability of tossing a coin and getting tails? _____
6. What is the experimental probability of rolling a 6-sided die and getting an even number?
Outcomes: _____ Experimental Probability _____
What is the theoretical probability of rolling a 6-sided die and getting an even number?

7. What is the experimental probability of rolling a 10-sided die and getting a 1, 2, 3 or 4?
Outcomes: _____ Experimental Probability _____
What is the theoretical probability of rolling a 10-sided die and getting a 1, 2, 3 or 4?

8. Toss the coin ten times. What is the experimental probability of getting heads in this experiment?
Outcomes: _____ Experimental Probability _____
What is the theoretical probability of getting heads when a coin is tossed? _____
9. How many possible outcomes when two coins are tossed together? _____