Probability

outcomes from the another, then there are

total possible outcomes.

## Class Activity 4

Due: Wednesday at noon Name: **Definition:** The set of all possible outcomes in a random experiment is called the Describe the sample space for the following random experiments: 1. Flipping a fair coin twice. 2. Three six sided dice are rolled and the sum is computed. 3. Choosing 2 marbles from a bag with 2 red marbles, 2 blue marble, and 1 green marble. **Definition:** The fundamental counting principle says that if there n outcomes from one event and m

**Definition:** If all outcomes are equally likely, then the **probability** of an event occurring is

$$P(E) = \qquad .$$

3. What is the probability of rolling a 2 on a fair six sided die?

4. What is the probability of getting two heads in a row when flipping a coin twice?

5. What is the probability of pulling two red marbles from a bag with 2 red marbles, 2 blue marbles, and 1 green marble?

6. What is the probability of rolling an even number or a one on a fair six sided die?

7.	What is the probability of drawing a jack or a queen from a deck of cards?
8.	What is the probability of rolling a number greater than 3 or an even number on a fair six sided die?
9.	What is the probability of rolling a number less than or equal to 3 or an odd number on a fair six sided die?
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	What is the relationship between the events in $8$ . and $9$ .? Is there anything special about the sum of the probabilities?

11.	What is the sample space for the following event: a six sided die is rolled.
12.	What is the sample space for the following event: two different integers between 1 and 5 are chosen and listed in
	increasing order.
13.	In problem 12., what is the probability of the first number being 2 or 3? What about the probability of the first
	number being 5?
14.	What is the probability of getting at least one heads if you flip a coin three times?