Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review for Probability Test

I am ready for the test because I can…

* Describe the probability of an event.
* Find the theoretical probability of an event.
* Find the complement of an event.
* Find the experimental probability of an event.
* Use proportions to make predictions.
* Find the sample space by drawing a tree diagram.
* Find the sample space by listing all possible outcomes.
* Use the counting principle to state the number of possible combinations.
* Find the probability of multiple events with replacement.
* Find the probability of multiple events without replacement.

**Directions:** Find the probability of the following events as a fraction.

1. There are 12 sixth graders, 11 seventh graders, and 9 eighth graders in a gym class. The gym teacher randomly selects one student to collect balls. What is the probability that the gym teacher will choose a seventh grader?
2. There are 7 sixth graders, 13 seventh graders, and 15 eighth graders in a gym class. The gym teacher randomly selects one student to collect balls. What is the probability that the gym teacher will choose a sixth grader?
3. There are 16 sixth graders, 14 seventh graders, and 7 eighth graders in a gym class. The gym teacher randomly selects one student to collect balls. What is the probability that the gym teacher will not choose a seventh grader?

**Directions:** Use the spinner to determine the **theoretical** probability of the event.

1. Spinning a 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Spinning a 6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. *Not* spinning a 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Spinning a number less than 7\_\_\_\_\_\_\_\_\_\_\_

**Directions:** The bar graph shows the results of spinning the spinner 40 times. Find the **experimental** probability of the event.



1. Spinning a 3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Spinning a number greater than 4\_\_\_\_\_\_\_\_
3. Spinning a number less than 5 \_\_\_\_\_\_\_\_\_\_\_
4. Spinning a 3 or a 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Use a **tree diagram** to find the total number of possible outcomes.



1.

**Directions:** **Make a list** to find the total number of possible outcomes.



**Directions:** Use the **Fundamental Counting Principle** to find the total number of possible outcomes.



1. 15.

**Directions:**  You randomly choose one of the chips. After **replacing** the first chip, you choose a second chip. Find the probability of choosing the first chip, then the second chip.



1. P(White and Red) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. P(Green and Red) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. P(White and Blue) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. P(White and White) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:**  You randomly choose one of the chips. **Without** replacing the first chip, you choose a second chip. Find the probability of choosing the first chip, then the second chip.



1. P(White and Red) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. P(Green and Red) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. P(White and Blue) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. P(White and White) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** **Describe** the likelihood of the following events.

1. The probability of having a boy. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The probability of rolling a 7 on a number cube. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The probability of a coin landing on heads or tails when flipped. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The probability of the Jets winning the Super Bowl. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. The probability of Mrs. Cress giving homework. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_