Algebra 2CP Chapter 12 Test (Probability) 12.1-12.5 Study Guide/Practice Test

1. Matching Vocabulary to Definitions. You have the list and the definitions – MEMORIZE THEM!

2. At the cafeteria, you can order a hamburger with or without cheese, lettuce, tomato, pickles, or onions, and have the meat cooked rare, medium, or well-done. How many different ways can you order your hamburger?

3. How many codes consisting of 2 letters followed by 3 digits can be made if no letter can be used more than once?

4. Evaluate each expression

a. P(10, 4)

b. C(9, 5)

c. C(7, 6)

d. P(16, 5)

5. Determine whether situation involves a permutation or a combination. Then find the number of possibilities.

a. 12 bikes parked in a row on a bike rack.

b. A hand of 7 cards from a deck.

6. Three cards are drawn from a standard deck of cards. Find each probability.

a. P (1 Ace, 1 King, 1 Jack)

b. P (3 Queens)

c. P (1 Diamond, 1 Heart, 1 Club)

7. A bag contains colored marbles as shown in the table below. Two marbles are drawn at random from the bag. Find each probability.

|  |  |
| --- | --- |
| Color | Number |
| Blue | 12 |
| Yellow | 5 |
| Green | 8 |

1. P (Blue, then Yellow) if no replacement occurs.
2. P (Blue, then Yellow) if replacement occurs.
3. P (2 Green) if no replacement occurs.
4. P (2 Green) if replacement occurs.

8. Fifty plastic chips, each with one of the numbers from 1 – 50, are in a bag. James will win a game if he can pull out any disk with a number divisible by 2 or 5. What is the probability that James will win?

9. Katie has a stack of 12 baseball cards, 18 hockey cards, and 10 football cards. If she selects a card at random, what is the probability that she draws

a. A baseball or hockey card?

b. A Football or hockey card?

c. A baseball or football card?