Name: _____ Period: _____ Date: _____

Probability of Multiple Events Guided Notes

1. The probability of an event A is the number of ways event A can _____ (k ways) divided by the total number of possible _____ N.

$\boldsymbol{P(A)} =$ _____.

2. Two events that cannot happen at the same time are known as _____ events.

3. If two events A and B with probabilities P(A) and P(B) are mutually exclusive, then the probability that both the events occur is _____.

The probability that either of the two events occur is _____.

Consider a dice is rolled twice and the two events under consideration are:

A = a dice is rolled and an odd number occurs

B = a dice is rolled and an even number occurs

Then the probability that both events occur is $\boldsymbol{P(A \cap B)}$ = _____.

And the probability that either of these events occur is $\boldsymbol{P(A \cup B)} =$ _____.

4. Two events are said to be _____ if the result of second event is not affected by the result of first event.

Two events are said to be _____ if the result of the second event is affected by the result of first event.

Name: _____ Period: _____ Date: _____

Probability of Multiple Events Guided Notes

5. If there are two independent events **A** and **B** with probabilities $\boldsymbol{P(A)}$ and $\boldsymbol{P(B)}$, then the probability of occurrence of both events is _____.

If there are two dependent events **A** and **B** with probabilities $\boldsymbol{P(A)}$ and $\boldsymbol{P(B)}$, and **A** occurs first, then the probability of occurrence of both events is $\boldsymbol{P(A}$ and $\boldsymbol{B)} =$

_____.

6. A dice is rolled and a coin is flipped. What is the probability that 5 comes on the dice and Tails comes on the coin?

_____

7. There are 3 yellow balls, 4 green balls and 5 red balls in a basket. A ball is taken out at random and not replaced. Then another ball is taken out. What is the probability that the first ball is yellow and the second ball is green?

_____