NAME _____ DATE _____

Module 20 Solving Problems Using Probability, Statistics, and Discrete Math
Lesson 2 Solving Basic Probability Problems

guided notes

Lesson Objectives

- Find experimental probability.
- Find theoretical probability.
- Find the probability of the complement of an event.

The probability of an event is the _____ that the event will occur.

The probability of an event can be expressed as a real number from zero to one, inclusive. An event with a probability of zero is _____. An event with a probability of one is _____ to occur.

The closer the probability of an event is to one, the _____ it is that the event will happen.

Experimental Probability = number of_____ trials ÷ _____ number of trials.

Theoretical Probability = number of _____ outcomes ÷ _____ number of outcomes.

The Law of Large Numbers states as the number of trials increases, the experimental probability gets _____ to the theoretical probability.

Use the table on the right to answer Questions 1 and 2.

A fair die was rolled 20 times. The number of times each number landed face up is shown.

Number	Number of times face up
1	4
2	2
3	3
4	5
5	2
6	4

1. Find the experimental probability of rolling a four.

_____

2. Find the theoretical probability of rolling a four.

_____

Complementary events are two mutually exclusive events; one of which must happen.

Mutually exclusive events are events that cannot happen

_____.

The formula P(not A) = _____ is used to find the probability of the complement of an event.

3 The probability of winning a carnival game is $\frac{3}{25}$. Find the probability of NOT winning the game. _____