

Date: \_\_\_\_\_

# Learning Goal

# Simple Probability

What is the probability that we will draw a red card?

What is the probability that we will draw a club?

What is the probability that we will draw a face card? (Jack, Queen, or King)

What is the probability of drawing a red Ace?

# Rolling the dice.. Twice!

<b>Sum</b>	<b>Tally</b>	<b>Frequency</b>	<b>Experimental Probability</b>
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

# Rolling the dice.. Twice!

## Class Results

<b>Sum</b>	<b>Frequency</b>	<b>Experimental Probability</b>
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

# Compound Probability

Compound probability deals with **multiple independent** events.

Examples: Flipping **three** coins (from last time)  
Rolling **two** dice (today)

Flipping Three Coins and Rolling Two Dice are examples of **COMPOUND PROBABILITY**.

Compound: the probability of one

event \_\_\_\_\_ depend on the

other event(s).

# Rolling the dice.. Twice!

Sum	How many ways can it happen?	What are the ways it can happen?					
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

## Rolling the dice.. Twice!

How many total ways are there of rolling two dice?

# Rolling the dice.. Twice!

<b>Sum</b>	<b>How many ways can it happen?</b>	<b>What is the Probability it Will Happen?</b>
2	1	
3	2	
4	3	
5	4	
6	5	
7	6	
8	5	
9	4	
10	3	
11	2	
12	1	

# Rolling the dice.. Twice!

Sum of Both Rolls		Roll on First Die					
		1	2	3	4	5	6
Roll on Second Die	1						
	2						
	3						
	4						
	5						
	6						

# Conditional Probability

Conditional probability deals with **multiple dependent** events.

Examples: Drawing **multiple** cards (today)

Drawing multiple cards is an example of **CONDITIONAL PROBABILITY**.

Conditional Probability: the probability of one event \_\_\_\_\_ on the other event(s).

## Hold 'em

In Texas Hold 'em Poker, players are dealt two "Hole" cards.

Let's say I have been dealt a King.

What is the probability that my second card will be a king?

## Hold 'em

The best possible hand to be dealt is two Aces.  
What is the probability of being dealt two Aces?

## Hold 'em

What is the probability of being dealt two spades?

The worst possible hand to be dealt is a 2 and a 7.  
What is the probability of being dealt a 2 and a 7?

What is the probability of being dealt **any** pair?