

**April 28, 2015** <sup>1st</sup>  
<sup>2nd</sup>  
**Get out your homework**



Liberal

## 4/28 Experiments/Outcomes/Events

An **experiment** is an investigation or a procedure that has varying results. The possible results of an experiment are called **outcomes**. A collection of one or more outcomes is an **event**. The outcomes of a specific event are called **favorable outcomes**.

For example, randomly selecting a marble from a group of marbles is an experiment. Each marble in the group is an outcome. Selecting a green marble from the group is an event.

*Possible outcomes*



*Event: Choosing a green marble*

*Number of favorable outcomes: 2*



## Experiment: Roll a die

There are \_\_\_\_\_ possible outcomes.

Out of 20 rolls, you think you will roll a 1 \_\_\_\_\_ times.

Event: Roll a die 20 times. Tally your outcomes in a table.

How close was your guess? How many favorable outcomes were there?



*favorable  
outcomes*

roll	#	roll	#
1	2	11	1
2	3	12	4
3	4	13	5
4	1	14	1
5	2	15	6
6	5	16	2
7	1	17	2
8	5	18	2
9	3	19	5
10	3	20	5

## Experiment: Flip a coin

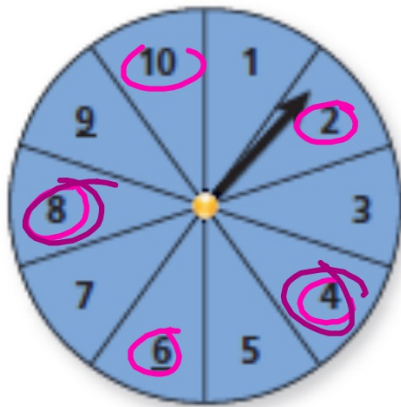
There are 2 possible outcomes.

Out of 20 flips, you think you will flip heads 10 times.

Event: Flip a dime 20 times. Tally your outcomes in a table.  
How close was your guess? How many favorable outcomes where there? 13



#	H/T	#	H/T
1	H	11	T
2	T	12	H
3	T	13	H
4	H	14	T
5	H	15	H
6	H	16	T
7	H	17	H
8	H	18	T
9	H	19	T
10	T	20	H



**Work with a partner. Use the spinner to the left.**

**a.** Do you have a better chance of spinning an even number or a multiple of 4? Explain your reasoning.

Even<sup>5</sup># because there are more even# than multiples of 4

**b.** Do you have a better chance of spinning an even number or an odd number? Explain your reasoning.

Neither, they have an = # of favorable outcomes

# Rock-Paper-Scissors

Work with a partner.

a. How many possible results are there?

9

b. Of the possible results, in how many ways can Player A win? Player B win? the players tie?

3, 3, 3

Rock breaks scissors.  
Paper covers rock.  
Scissors cut paper.

		Crystal		
		Rock	Paper	Scissors
Player B	Rock	 		
	Paper			
	Scissors			 

c. Does one of the players have a better chance of winning than the other player? Explain your reasoning.

d. Play Rock Paper Scissors 30 times. Tally your results in the table.

**Randomly chose one of these  
marble out of a bag**



- a. How many possible outcomes are there? 8
- b. In how many ways can choosing blue occur? 2
- c. In how many ways can choosing *not* yellow occur? What are the favorable outcomes of choosing *not* yellow? 5

green, blue, red, purple, blue

# Homework

Pink WS3

**Due** Wed.