

**April 30, 2015<sup>4th</sup>**  
**Get out your homework**



Liberal

## 4/30 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 6 possible outcomes.

Out of 20 rolls, you think you will roll a 1 3-4 times.

Event: Roll a die 20 times. Tally your outcomes in a table.  
How close was your guess? How many favorable outcomes were there?



1 2  
2 2  
3 5  
4 3  
5 7  
6 1

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

## 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?



#	H/T	#	H/T
1	H	11	H
2	T	12	H
3	T	13	T
4	H	14	T
5	H	15	T
6	T	16	T
7	H	17	T
8	H	18	T
9	T	19	T
10	H	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, there are more even #'s (2, 4, 6, 8, 10) than multiples of 4 (4, 8)*

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

*Neither, they are the same*

# 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.

		Player A		
		Rock	Paper	Scissors
Player B	Rock			
	Paper			
	Scissors			

Tie

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

No, equal chance of choosing any option.

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,  
blue, blue, red, green, purple

# Homework

8 → 10

5 → 6

1 → 1

7 → 9

4 → 5

0 → 0

6 → 8

3 → 4

2 → 3

# Due