

NAME: \_\_\_\_\_  
PROBABILITY

DATE: \_\_\_\_\_  
PERIOD: \_\_\_\_\_

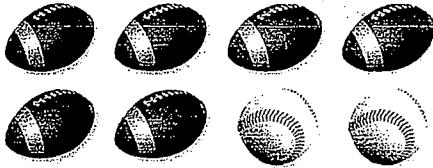
**Do Now!**  
**(Topic #1)**

1. There are 32 football players and 16 cheerleaders at your school. Write the ratio of cheerleaders to football players in *simplest form*.
2. Use the table at the right to answer the below.

	Boys	Girls
Classroom A	14	11
Classroom B	12	8

- a) Write the ratio of girls to boys in Classroom A in *simplest form*.
- b) Write the ratio of boys in Classroom B to the total number of students in both classes in *simplest form*.

Write the ratio in *simplest form*.



3. baseballs to footballs



5. sneakers to ballet slippers

4. footballs to total pieces of equipment

6. sneakers to total number of shoes

There are 4 red beads, 3 green beads, 6 blue beads, and 2 black beads. Write the ratios in *simplest form*.

7. green beads to blue beads

8. red beads : green beads

9. green beads : total number of beads



**2 ACTIVITY:** Comparing Different Results

Work with a partner. Use the spinner in Activity 1(c).







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

**3 ACTIVITY:** Rock Paper Scissors

Work with a partner.

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

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

		Player A		
		Rock 	Paper 	Scissors 
Player B	Rock 			
	Paper 			
	Scissors 			

b. How many possible results are there?

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

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

### **What Is Your Answer?**

4. **IN YOUR OWN WORDS** In an experiment, how can you determine the number of possible results?

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## HOMEWORK - (Topic #1)

### Identifying the Favorable Outcomes of an Event

event      favorable outcomes      outcomes      experiment

Read each sentence below. Select the appropriate word from the box and write it on the line.

1. An \_\_\_\_\_ is an investigation or a procedure that has varying results.
2. The possible results of an experiment are called \_\_\_\_\_.
3. A collection of one or more outcomes is an \_\_\_\_\_.
4. The outcomes of a specific event are called \_\_\_\_\_.

***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***.

#### **EXAMPLE 1: Identifying Outcomes**

**You roll a number cube.**

5. What are the possible outcomes?
6. What are the favorable outcomes of rolling an odd number?
7. What are the favorable outcomes of rolling a number greater than 4?

#### **EXAMPLE 2: Counting Outcomes**

**You spin a spinner that has 6 equal sections. Three of the sections are red, 1 section is purple, blue and green.**

8. How many ways can spinning blue occur?
9. How many ways can spinning *not* green occur?
10. What are the favorable outcomes of spinning *not* green?

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**Do Now!**  
 (Topic #1)

1. There are 32 football players and 16 cheerleaders at your school. Write the ratio of cheerleaders to football players in *simplest form*.

$$\frac{16}{32} = \frac{1}{2} \quad 1 \text{ to } 2 \quad 1:2$$

2. Use the table at the right to answer the below.

	Boys	Girls
Classroom A	14	11
Classroom B	12	8

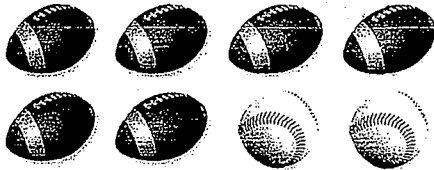
- a) Write the ratio of girls to boys in Classroom A in *simplest form*.

$$\frac{11}{14} \quad 11 \text{ to } 14 \quad 11:14$$

- b) Write the ratio of boys in Classroom B to the total number of students in both classes in *simplest form*.

$$\frac{12}{14+12+11+8} = \frac{12}{45} = \frac{4}{15} \quad 4 \text{ to } 15 \quad 4:15$$

Write the ratio in *simplest form*.



3. baseballs to footballs

$$\frac{2}{6} = \frac{1}{3}$$

4. footballs to total pieces of equipment

$$\frac{6}{8} = \frac{3}{4}$$



5. sneakers to ballet slippers

$$\frac{2}{4} = \frac{1}{2}$$

6. sneakers to total number of shoes

$$\frac{1}{3}$$

There are 4 red beads, 3 green beads, 6 blue beads, and 2 black beads. Write the ratios in *simplest form*.

7. green beads to blue beads

$$\frac{3}{6} = \frac{1}{2}$$

8. red beads : green beads

$$4:3$$

9. green beads : total number of beads

$$3:15$$

$$1:5$$

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## HOMEWORK - (Topic #1)

### Identifying the Favorable Outcomes of an Event

event

favorable outcomes

outcomes

experiment

Read each sentence below. Select the appropriate word from the box and write it on the line.

1. An experiment is an investigation or a procedure that has varying results.
2. The possible results of an experiment are called outcomes.
3. A collection of one or more outcomes is an event.
4. 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**.

#### EXAMPLE 1: Identifying Outcomes

You roll a number cube.

5. What are the possible outcomes?  
1, 2, 3, 4, 5, 6
6. What are the favorable outcomes of rolling an odd number?  
1, 3, 5
7. What are the favorable outcomes of rolling a number greater than 4?  
5, 6

#### EXAMPLE 2: Counting Outcomes

You spin a spinner that has 6 equal sections. Three of the sections are red, 1 section is purple, blue and green.

8. How many ways can spinning blue occur?  
1
9. How many ways can spinning *not* green occur?  
5
10. What are the favorable outcomes of spinning *not* green?  
Red, Red, Red, Purple, Blue