10.1

Outcomes & Events

Do Now

Write the ratio in simplest form.

1. baseballs to footballs

2. sneakers to ballet slippers

3. footballs to total pieces of equipment

4. sneakers to total number of shoes

5. green beads to blue beads

6. red beads:green beads

7. green beads:total number of beads

Learning Target:
I can identify and count the outcomes of experiments.

Key Ideas:

experiment: an _____ or a _____ that has varying results.

outcomes: the _____ _____ of an experiment.

event: collection of ____ or _____ outcomes.

favorable
outcomes: the outcomes of a _____ _____.

Learning Target:
I can identify and count the outcomes of experiments.

Example:

randomly selecting a marble from a group of marbles is an _____.

each marble in the group is an _____.

selecting a green marble from the group is an _____.

Possible outcomes

Event: Choosing a green marble
Number of favorable outcomes: 2

When an experiment is performed *at random* or *randomly,* all of the possible outcomes are equally likely.

Identifying Outcomes

a. What at the possible outcomes?

b. What are the favorable outcomes of rolling an even number?

c. What are the favorable outcomes of rolling a number greater than 5?

Practice

1. You randomly choose a letter from a hat that contains the letters A through K.

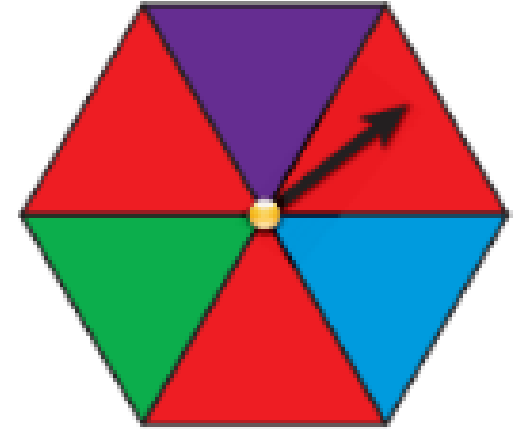   a) What are the possible outcomes?

   b) What are the favorable outcomes of choosing a vowel?

Counting Outcomes

You spin the spinner.

a. How many possible outcomes are there?

b. In how many ways can spinning red occur?

c. In how many ways can spinning *not* purple occur? What are the favorable ways of spinning *not* purple?

Practice

You randomly choose a marble.

a. How many possible outcomes are there?

b. How many ways can choosing blue occur?

c. In how many ways can choosing *not* yellow occur?
      What are the favorable ways of choosing *not* yellow?