

15.1

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 _____.

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 _____.

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

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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 are 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?

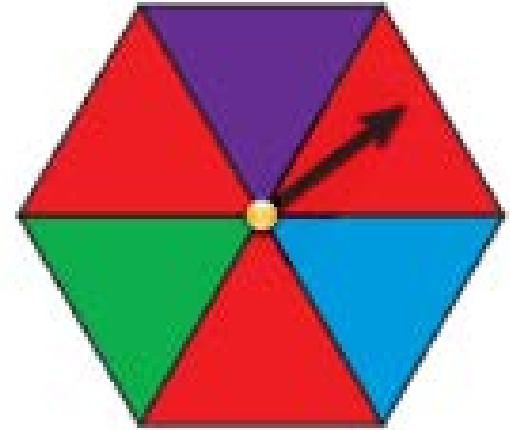
Counting Outcomes

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?