Important Concepts . . .

Preview Review

Mathematics Grade 5

W3 - Lesson 5: Chance and Probability

V5-07

Important Concepts of Grade 5 Mathematics

W1 - Lesson 1 .....Number Sense Numbers 0 to 100 000
W1 - Lesson 2 ..... Exploring Proper Fractions
W1 - Lesson 3 ..... Exploring Decimals
W1 - Lesson 4 .....Numbers With Up to 2 Decimal Places
W1 - Lesson 5 ..... Multiplication
W1 - Quiz
W2 - Lesson 1 ..... Division
W2 - Lesson 2 ..... Collecting Data and Analyzing Patterns
W2 - Lesson 3 .....Estimating and Taking Measurements
W2 - Lesson 4 ..... Perimeter and Area Measurements
W2 - Lesson 5 ..... Metric Measurements
W2 - Quiz
W3 - Lesson 1 ..... Volume, Capacity, Mass, and Time
W3 - Lesson 2 ..... 2-D Shapes and 3-D Objects
W3 - Lesson 3 .....Transformations
W3 - Lesson 4 ..... Statistics and Probability
W3 - Lesson 5 .....Chance and Probability
W3 - Quiz

Materials Required

Protractor
Ruler
Calculator

A textbook is not needed.

This is a stand-alone course.

Mathematics Grade 5
Version 5
Preview/Review W3 - Lesson 5

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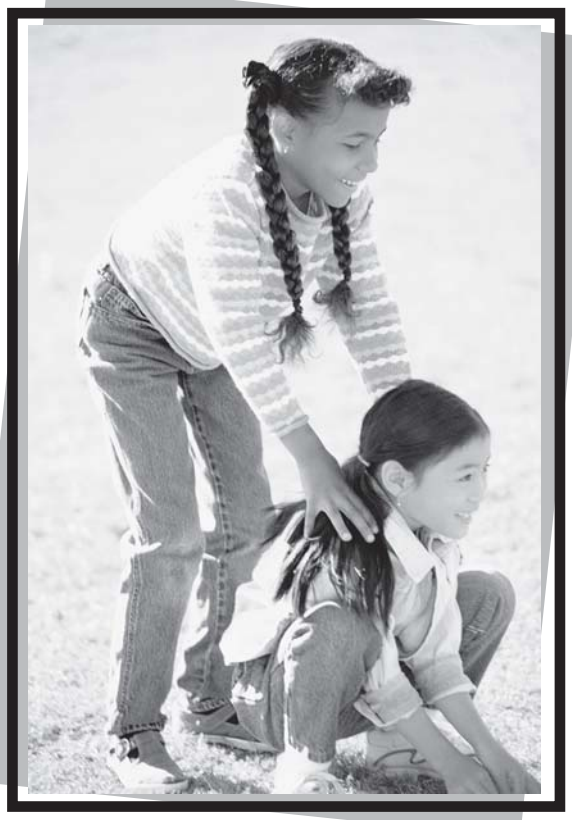
Preview/Review Concepts for Grade Five Mathematics



W3 - Lesson 5: Chance and Probability

OBJECTIVES

By the end of this lesson, you should

- understand the nature of probability
- learn the terms used in probability
- conduct a probability experiment

Glossary of Terms

Data: information gathered and analyzed

Event: a result that is of note in a discussion of probability

Fair event: a situation in which either outcome is equally likely to happen

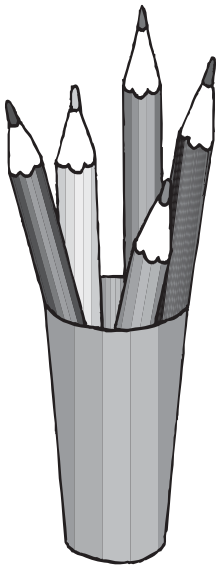
Frequency: the number of times something happens or occurs

Improbable event: a situation in which an event or outcome is unlikely to happen

Population: an entire group of people (or things) for which information is required

Probable event: a situation in which an outcome is likely but not certain

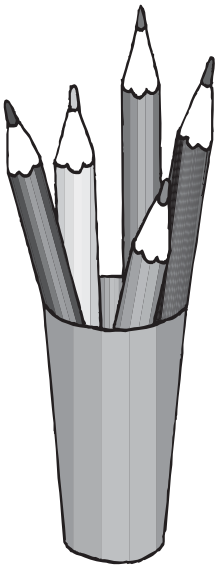
Probability: the chance of something happening



Random: not specifically chosen; happens by chance

Sample: a selection of population from which information is gathered

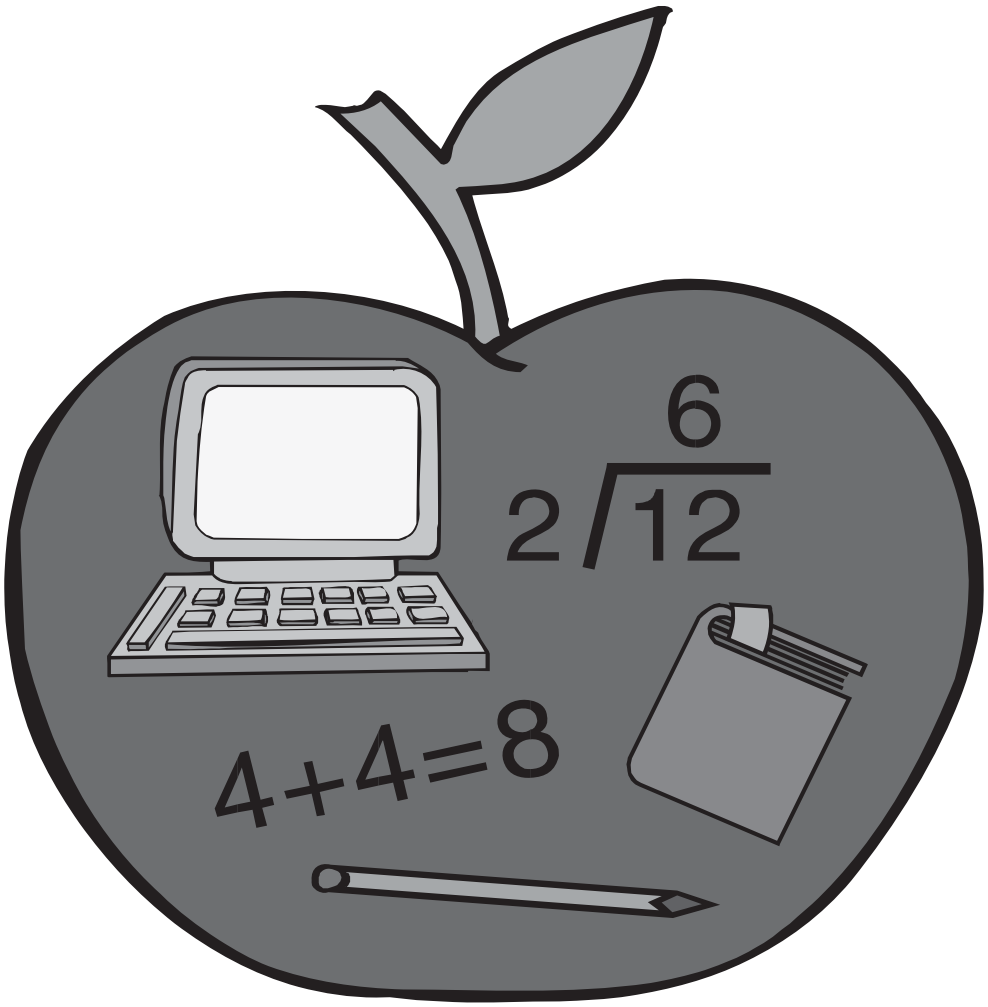
Unfair event: a situation in which one outcome is more likely than the other



W3 - Lesson 5: Chance and Probability

Concepts:

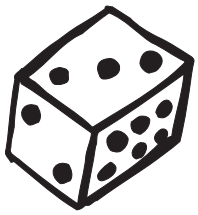
- An Experiment
- The Language of Chance and Probability
- Conduct an Experiment and Explain the Results



An Experiment

Often we will use a dice toss to decide who goes first in a game. Is there a higher probability that some numbers are more likely to come up than other numbers?

Before we start our experiment, we need to make sure we know all the possible solutions to the experiment, both likely and unlikely.



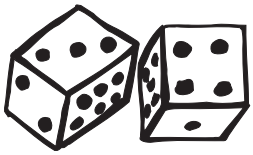
What are the six possible ways that a single die will land?

_____

What is the probability of rolling a 3?

_____

What is the probability of rolling doubles when using two dice? List the possible outcomes of rolling two dice. (Hint: 36 ways possible.) Begin by showing all the possible combinations: (1,1), (1,2), (1,3)...



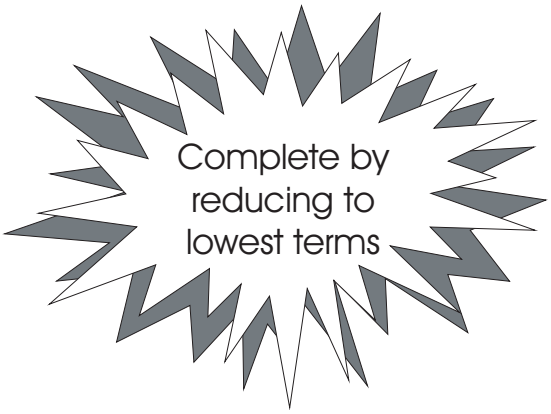
What are the six favourable outcomes if your goal is to roll doubles when rolling two dice?

_____

_____

To find the probability of a situation, use the following formula:

$$\text{Probability} = \frac{\text{Favourable Outcome}}{\text{Possible Outcomes}}$$



What is the probability of rolling doubles? _____

Another way of stating the probability of rolling doubles is ...

For every _____ rolls, _____ is likely to be doubles.

The Language of Chance and Probability

Fill the blanks with the following probability terms.

best	**worst**	**probable event**	
always	**never**	**improbable event**	
impossible	**more likely**	**less likely**	**equally likely**

1. We are _____ to see snow in June than in April.
2. A chance of rain is_____ in July.
3. When flipping a coin, you have a(n)_____ chance of receiving heads as tails.
4. A good experiment should _____ be unfair.
5. You are _____ to see Canadian geese in May than in December.
6. The _____ place to go during a tornado is the basement.
7. *Absolute* _____ means that something is certain to happen. Probable events are more likely to happen.
8. An _____ is less likely to take place than a _____ .

Conduct an Experiment and Explain the Results

Create an experiment that involves probability. This might include tacks, dice, coin tosses, or anything else as long as you have cleared it with your teacher.

1. What is the purpose of your experiment? (What are you trying to determine by doing the experiment?)

_____

_____

2. Guess what you think will occur in this experiment.

_____

_____

_____

3. Explain what procedures and material are required to complete this experiment.

_____

_____

_____

_____

_____

_____

4. Prepare a chart to record your data. Then, do your experiment, and record your data in the table.

5. Tally your results; then, explain what the results mean.

_____

_____

_____

6. Create a probability calculation from your results.

_____

_____

7. Write a probability statement about your experiment using at least two terms listed on page 5. Write two conclusions about what you found from looking at (analyzing) your data.

_____

_____

_____

_____