

Lesson 5.1 Probability

Day 1

Teach objective and review unit “Reading strategies” and “Success for English learners”

Assignment - Guided practice and Independent practice completed as a class

Reading strategies answers

1. Unlikely
2. Impossible
3. Certain

Success for English learners

1. As likely as not; because there are 3 even numbers and 3 numbers that are not even.
2. Impossible; there are no purple marbles in the bag.

Day 2

Review

Cooperative (elbow buddy) assignment 5.1 practice and problem solving: D

5.1 Practice and problem solving: A/B

Login to Go Math

Go to the Resources Tab

Click on the Student Online Edition (yellow open book)

This will take you to another window to an interactive student edition textbook.

Go to page 155

Answers to “reflect”, Explore activity” and “your turn” questions

EA.

6:6 9

0:6 1

2:6 3 or 4

1:6 2

5:6 8

3:6 5 or 6

4:6 7

3:6 5 or 6

2:6 3 or 4

1. Rolling an 8 is impossible because there is no 8 on the number cube.
2. Neither is very likely, but event A is more likely to happen than event B;
 $\frac{1}{3} > \frac{1}{4}$
3. As likely as not; $\frac{1}{2}$

4. $\frac{1}{2}$
5. $\frac{1}{3}$

For answers to the guided practice and independent practice, see Coach Gammon.

Additional web sites

<http://www.youtube.com/watch?v=uzkc-qNVoOk>

<http://www.youtube.com/watch?v=YpvE0Co66nU>

Remember, on the online edition, you can click on the “math on the spot” for a little extra teaching from Prof Burger. If you only have your book, use a QR scanner on the “math on the spot”

Lesson 5-1

Probability

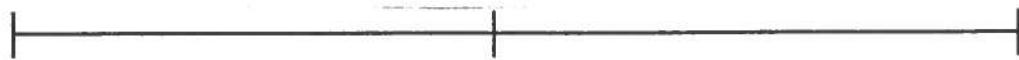
Q: How can you describe the likelihood of an event?

A: _____

Vocabulary

1. _____ an activity involving chance in which results are observed
2. _____ an observation of an experiment
3. _____ each result
4. _____ measures the likelihood that the event will occur.
5. _____ a set of all possible outcomes for an event
6. _____ the set of all outcomes in a sample space that are NOT included in the event.

The likelihood can be described as.



You can _____ the likelihood as certain, likely, as likely as not, unlikely, or impossible

Lesson 5-1

Event: A set of one or more outcomes

Probability

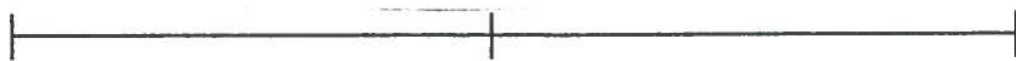
Q: How can you describe the likelihood of an event?

A: _____

Vocabulary

1. experiment an activity involving chance in which results are observed
2. trial an observation of an experiment
3. outcome each result
4. probability measures the likelihood that the event will occur.
5. sample space a set of all possible outcomes for an event
6. complement the set of all outcomes in a sample space that are NOT included in the event.

The likelihood can be described as.



You can _____ the likelihood as certain, likely, as likely as not, unlikely, or impossible

LESSON
5-1

Probability

Reading Strategies: Use a Table

Creating a table can help you solve probability problems.

You are to choose one of the cards at right without looking.

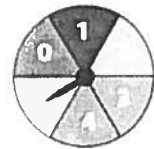
Consider the probability of three outcomes: 1) choosing a vowel, 2) choosing a B, or 3) choosing a letter in the word *MATH*.



Complete the table by writing whether each of the desired outcomes is *impossible*, *unlikely*, *as likely as not*, *likely*, or *certain*.

Possible Outcomes	Desired Outcomes		
	Vowel	B	Letter in <i>MATH</i>
M	no	no	yes
A	yes	no	yes
T	no	no	yes
H	no	no	yes
Results	1 out of 4	0 out of 4	4 out of 4
Probability	1. _____	2. _____	3. _____

4. You spin the spinner at the right. Complete the table. Tell whether each of the desired outcomes is *impossible*, *unlikely*, *as likely as not*, *likely*, or *certain*.



Possible Outcomes	Desired Outcomes		
	6	Factor of 4	Greater than 0
Results	____ out of ____	____ out of ____	____ out of ____
Probability			

LESSON
5-1

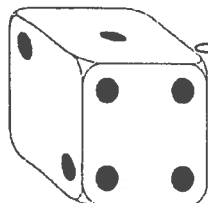
Probability

Success for English Learners

Problem 1

A number cube can help you understand probability.

Think!



Possible outcomes:
1 2 3 4 5 6

Is it **likely** that you will roll a 1 every time?

This means the probability of rolling a 1 every time is low.

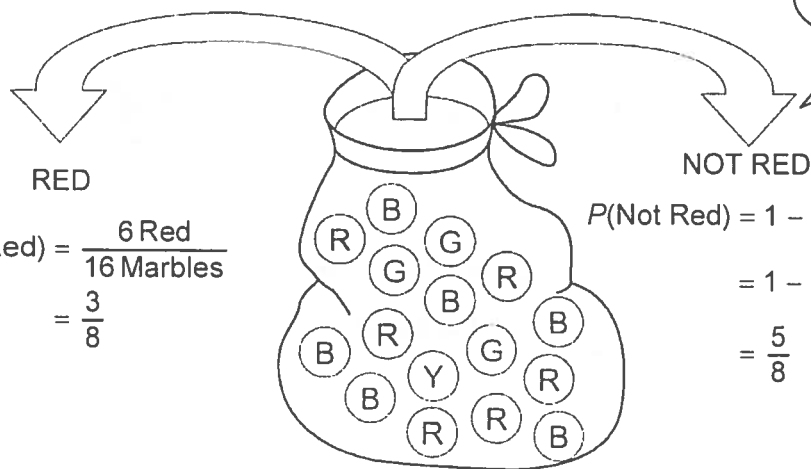
No. The cube has 6 sides. Only one side is a 1. It is **unlikely** that I will roll a 1 every time.

Problem 2

There are 16 marbles in a bag.

To find the probability of **not** drawing a red marble, first find the probability of drawing a red marble.

R = Red G = Green B = Blue



RED

$$P(\text{Red}) = \frac{6 \text{ Red}}{16 \text{ Marbles}}$$

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

NOT RED

$$P(\text{Not Red}) = 1 - P(\text{Red})$$

$$= 1 - \frac{3}{8}$$

$$= \frac{5}{8}$$

$P(\text{Red})$ means "the probability of drawing a red marble."
 $P(\text{Not Red})$ means "the probability of drawing any marble that is NOT red."

1. In Problem 1, is it more likely, less likely, or as likely as not to roll an even number? Why?

2. In Problem 2, how likely is it that you will select a purple marble? Why?

LESSON
5-1

Probability

Practice and Problem Solving: A/B

Determine the probability of each event. Write *impossible*, *unlikely*, *as likely as not*, *likely*, or *certain*. Then, tell whether the probability is 0, close to 0, $\frac{1}{2}$, close to 1, or 1.

1. randomly picking a blue card from a bag containing all blue cards

2. rolling an odd number on a number cube containing numbers 1 through 6

3. picking a red marble from 4 white marbles and 7 green marbles

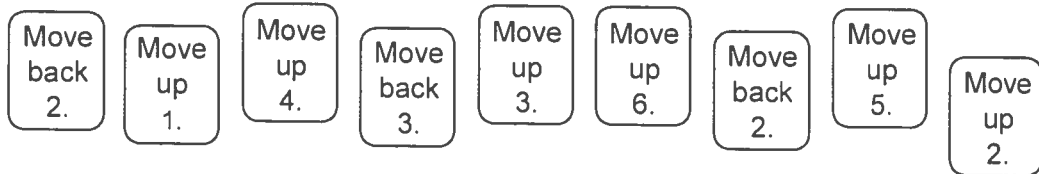
Find each probability. Write your answer in simplest form.

4. A bag holds 6 tiles: 2 lettered and 4 numbered. Without looking, you choose a tile. What is the probability of drawing a number?

5. The names Phil, Angelica, Yolanda, Mimi, and Ed are on slips of paper in a hat. A name is drawn without looking. What is the probability of **not** drawing Ed?

6. A standard deck of cards contains 13 of each suit: red hearts, red diamonds, black clubs, and black spades. What is the probability of drawing a red card without looking?

A board game includes the 9 cards below.



7. Mia says the probability of moving back is the same as the probability of moving up. Is she correct? What is the probability of moving back? Explain.

8. Gavin needs to move up more than 4 spaces to win the game. Is he likely to win on his next turn? What is the probability that he will **not** win on his next turn? Explain.
