Probability

Math 1, Unit 7

Anaheim Union High School District

Dear Student & Parent/Guardian,

In this unit students will be studying probability, or the chance of an event occurring, by flipping coins, rolling number cubes, tossing paper into trash cans from different distances, making a human spinner, flipping cups and even making our own number cubes to try to beat a classmate's number cube!

We will also learn how to organize the theoretical outcomes of these events in frequency tables, two-way tables and tree diagrams to make predictions about future events.

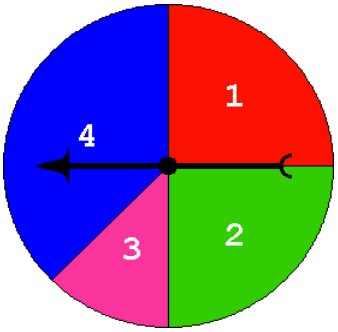
-AUHSD Math Teachers

Why are we studying this?

Probability helps us to predict the likelihood of a real-world event occurring, which could be modeled by such as flipping a coin, or rolling a number cube .We will learn that probability is a number between 0 and 1, inclusive, and what it means when the probability is equal to 0, 1, or a percent in between. We will learn how to develop mathematical models to find the probabilities of various events and investigate if our model worked or why there might be a discrepancy.

You are shooting three paper trash balls from a distance of 3cm, and then 150 cm, 250 cm, 350 cm and 6 meters. Note that your eyes must be CLOSED when shooting from 6 meters.

Use the words <u>impossible, unlikely, likely or certain</u> to predict how likely it is that you will make all three baskets from each distance.



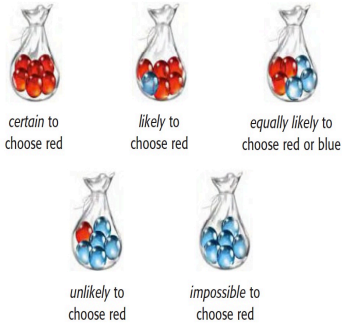
Sample Question

Is the probability of the spinner landing on each number equally likely?

A Note About Homework

Homework in this unit will contain a spiral review of topics previously learned in Math 1 as well as topics concurrent with the unit of instruction. Topics include:

- Proportional Reasoning
- Ratios
- Probability



Real-World Application

Approximately 10% of the population has type B blood. A person with type B blood can donate blood to a person with type B or type AB and can receive blood from a person with type B or type O.

If 20 donors came to a particular blood center in one day, what is the probability of at least 4 type B blood donors?

Essential Questions Addressed in this Unit

- What is probability?
- Are all outcomes equally likely?
- How can probability be used to predict frequency?
- How can data allow us to come up with a probability model?