### **PROBABILITY**



# What Is Probability?

- Probability is the chance that a particular event will occur.
- There are four different ways to show the probability:
  - One way is to show the **certainty**: certain, likely, somewhat likely, not likely, impossible
  - o The other three ways are **with numbers**. These include the number of chances with the total number of occurrences. If the probability of an event happening is 3 out of 5, it could also be written like this: 3:5 or 3/5.

## How to figure out probability:



• The probability that an event will occur is the number of chances there are out of the total number of occurrences.

#### For example:

You have a bag of marbles with 3 red, 4 blue, and 5 green.
What is the probability you will choose an orange marble?
Again, since there are no orange marbles in the bag, the probability would be 0 out of 12.

### What is the probability of choosing a red marble?

Since there are 3 red marbles and there are 12 marbles all together, the probability of choosing a red marble from the bag would be **3 out of 12** or 3:12 or 3/12.



# **Try This!**

## Find the probability of the following.

If a number cube has the numbers 1 through 6 on it, what is the probability an even number will be rolled?

A box of crayons has 2 blue, 5 green, 3 yellow, and 5 red crayons in it. What is the probability of choosing a green crayon?



