

## **Probability - Tool Box**

**Probability** is \_\_\_\_\_.

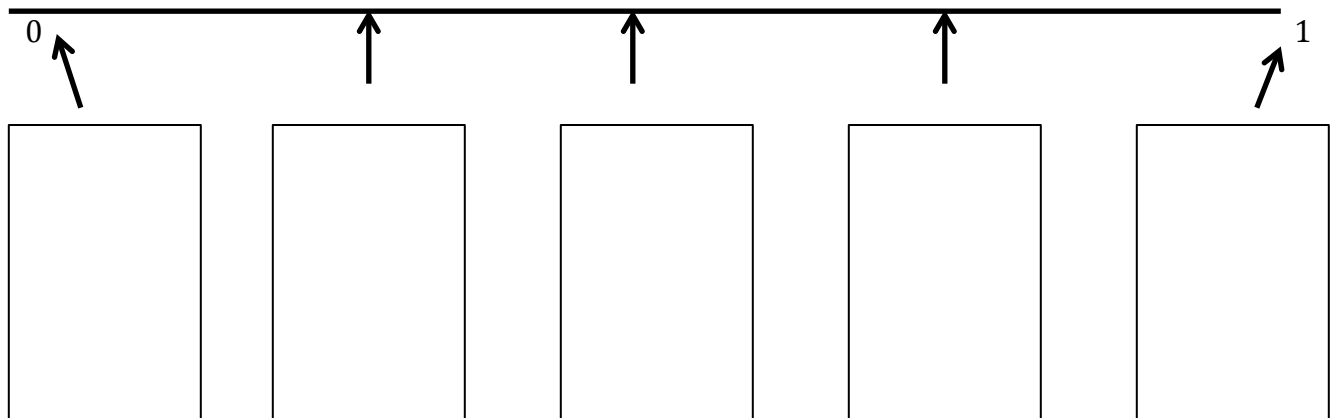
Probability is represented as a non-negative number between \_\_\_\_\_ and \_\_\_\_\_, inclusive.

When  $P = 1$ , it means that \_\_\_\_\_.

When  $P = 0$ , it means that \_\_\_\_\_.

### **Likelihood**

Fill in each box below with an event that might fall on the location the arrow is pointing to and state the approximate percent of the event occurring.



### **Equally Likely Outcomes**

Explain what it means for outcomes to be equally likely. Give an example of an experiment where the probability of each outcome occurring is equally likely and give an example of an experiment where the probability of each outcome occurring is NOT equally likely.

Equally likely outcomes means that \_\_\_\_\_

Equally likely outcomes (example) \_\_\_\_\_

Not equally likely outcomes (example) \_\_\_\_\_

## Possible Outcomes

How many possible outcomes are there when a 6-sided die is rolled? \_\_\_\_\_

List the outcomes: \_\_\_\_\_

Define the word **outcome**: \_\_\_\_\_

Is each outcome equally likely? Explain. \_\_\_\_\_

**Finding the probability of events that come from a sample space of equally likely possible outcomes is known as \_\_\_\_\_, such as in the example with the die above.**

**Experimental Probability** is \_\_\_\_\_

## Organizing Events

**Two-Way Table:** Use a two-way table to show the possible outcomes of the sum of two dice, rolled independently.

What is the probability of rolling a sum of 9? \_\_\_\_\_

**Tree Diagram:** Use a tree diagram to show the possible outcomes of flipping two coins.

What is the probability of flipping two heads? \_\_\_\_\_

