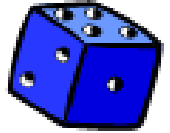


15.2

Probability

Do Now

1. Is rolling an even number on a number cube an outcome or an event? Explain.



2. Describe how an outcome and a favorable outcome are different.

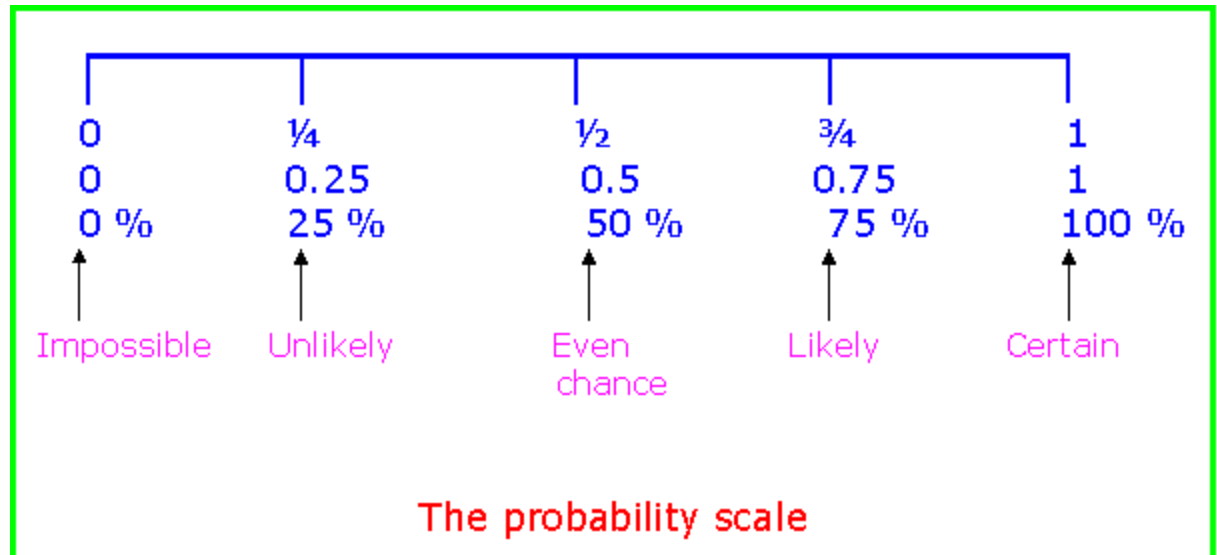
Learning Target:

- I can understand the concept of probability and the relationship between probability and likelihood.
- I can find probabilities of events.

Key Ideas:

Probability: of an _____ is a _____ that measures the _____ that the event will occur.

Probabilities are between ____ and ____, _____ 0 and 1.



**probabilities can be written as fractions, decimals, or percents*

Describing the Likelihood of an Event



There is an 80% chance of thunderstorms tomorrow. Describe the likelihood of the event.

Practice:

Describe the likelihood of the event given its probability.

- 1) The likelihood that you land a jump on a snowboard is $\frac{1}{2}$.

- 2) There is a 100% chance that the temperature will be less than 120°F tomorrow.

Finding the Probability of An Event

When all possible _____ are equally _____, the _____ of the _____ is the ratio of the number of _____ to the number of _____.

the probability of an event is written as **P(event)**.

$$P(\text{event}) = \frac{\text{number of favorable outcomes}}{\text{number of possible outcomes}}$$



Practice:

- 3) What is the probability of rolling a number greater than 2?
- 4) What is the probability of rolling a 7?

Using Probability

The probability that you randomly draw a short straw from a group of 40 straws is $\frac{3}{20}$. How many are short straws?



(A) 4

(B) 6

(C) 15

(D) 34

Practice:

5) The probability that you randomly draw a short straw from a group of 75 straws is _____. How many are short straws?