Probability

The **probability** of an event is a number that measures the likelihood that the event will occur.

Probabilities are between 0 and 1, including 0 and 1.

Ex: There is an 80% chance of thunderstorms tomorrow.

➔ Thunderstorms are *likely* tomorrow.

Ex: The probability that you land a jump on a snowboard is ½.

➔ Equally likely to happen or not happen.

<u>Probability</u> of an event = P(event) = $\frac{number\ of\ favorable\ outcomes}{number\ of\ possible\ outcomes}$

Ex: You roll the number cube. What is the probability of rolling an odd number?

P(odd) = $\frac{3\ (\text{There are 3 odd numbers}-1,3,5)}{6\ (\text{There is a total of 6 numbers})}$ = ½

Ex: You roll a number cube. What is the probability of rolling a number greater than 2?

P(number greater than 2) = 4/6 = 2/3

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

$\frac{3}{20} = \frac{n}{40}$ n = 6 short straws