

* Things to Keep in mind :

- Fractions might need to be simplified to be counted correct.

Ex: $\frac{4}{12} = \frac{1}{3}$ (4 and 12 can be divided by 4)

- A "number cube" is just dice. Only possibilities are 1, 2, 3, 4, 5, and 6

Ex: What is the probability of rolling an even number on a number cube?

2, 4, + 6 are even $\rightarrow \frac{3}{6} = \frac{1}{2}$ (simplified)
6 total possibilities $\rightarrow 6$

- A standard deck of cards has 52 cards
 - Half are red and Half are black
 - There are 4 suits : Hearts, Clubs, Diamonds and Spades
 - So therefore there are 4 of each value 2, 3, 4, 5, 6, 7, 8, 9, 10, Jack, Queen, King, Ace

Probabilities

• The probability of an event measures the likelihood that the event will occur. This is a measure between 0 and 1 and can be written as a fraction, a decimal, or percent.

Impossible	Unlikely	As Likely As Not	Likely	Certain
↓	Between	↓	Between	↓
0	0 and $\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$ and 1	1
0	0 and 0.5	0.5	0.5 and 1	1.0
0%	0% and 50%	50%	50% and 100%	100%

* Many questions are answered in one of these forms, please read carefully.

• Probability of an Event → Many times this is written as a simplified fraction.

(Set up this way) →
$$\frac{\text{\# of times event occurs}}{\text{Total Possibilities (Trials)}}$$