## Reference: <https://www.youtube.com/watch?v=hezOH7XSX6s> (Chegg channel) + Geeks4Geeks

## Independent Events:

* Events not affecting each other

Conditional Probability:

* Given two events A and B, find out the probability of event A given event B has already occurred
  + P(A|B) = P(AB)/P(B) = Probability of event A and B occur divided by probability that event B occurs.
  + Probability of A given B

Bayes Theorem

* Describes relationships between the two directions of a conditional probability
* P(A/B) = P(B/A)P(A)/P(B)
* P(B/A) = P(A/B)P(B)/P(A)
* Mathematical formula used to determine the conditional probability of an event based on prior knowledge and new evidence.
* The conditional probability of an event A, given the occurrence of another event B, is equal to the product of the probability of B, given A, and the probability of A divided by the probability of event B.