Classical Definition of Probability (*Laplace*)

If an event can have N_A different outcomes, within a total of N possible outcomes (mutually exclusive and equally possible), then the probability of event A is:

$$P(A) = \frac{N_A}{N}$$

Example:

Consider rolling a six sided die.

Event A: rolling a multiple of 3. N_A outcomes: A = {3, 6}

The set of possible outcomes is S = {1, 2, 3, 4, 5, 6}, thus N = 6.

Therefore, $P(A) = \frac{N_A}{N} = \frac{2}{6} = \frac{1}{3}$