

# The basics of Probability

Defn: Probability is a measure of the likelihood of an event  
↳ experiment

Eg: Flipping of a coin, what the probability of getting head?

Ans) Sample Space =  $\overset{\text{outcomes}}{\{H, T\}}$

$$\begin{aligned}\text{Probability} &= \frac{\text{No. of ways an event can occur}}{\text{No. of possible outcomes}} \\ &= \frac{1}{2} = \underline{0.5} \Rightarrow 50\%\end{aligned}$$

Rolling a Dice. Probability of getting 6.

$$\Pr(6) = \frac{1}{6} = \frac{1}{6}\% = 0.166 = 16.6\%$$

Probabilities (0 to 100%)

{ Sample Space  
Even H  
Probability }