sat sun mon tue wed thu fri Date / /

Defining probability:

$$P = \frac{\#\text{ favourable events}}{\text{All possible events}} \quad \text{equally likely events}$$

probability of 2 appearing on a die of six faces: 1/6

P (H) = 1/2
probability

Two paradigms of probability

probability of a two on the die if it was shakuni

prob of Modiji had tea in the morning

Frequentist, (no past thinking) Bayesian (depends on prior)

$\frac{\text{No tea}}{\text{No tea + tea}}$

Sunrises in Theras $\frac{1}{4}$ 1 (based on prior)

What is the prob that Sun rises tomorrow?

Bayesian approach - Calculates prior

Frequentists: Gets sample, long frequency distributions, parameters fixed

What is the probability of a two on die?

Frequentist:

Try throwing die 10k times, count distribution say its close to 1/6

Bayesian:

wait, this dude cheated previously with a die which are always biased. Hence I would like to assess prior for this die. So he ask the guy for past distribution.

probability