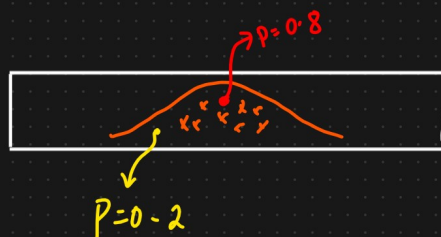


P value

The p value is a number, calculated from a statistical test, that describes **how likely you are to have found a particular set of observations if the null hypothesis were true**. P values are used in hypothesis testing to help decide whether to reject the null hypothesis.



Out of 100 touches in this
Keep the probability of touching
in this region 20

Hypothesis Testing

Exp = Coin is fair or Not {100 Tosses}

$\{H, T\}$

① Null Hypothesis H_0 : Coin is fair

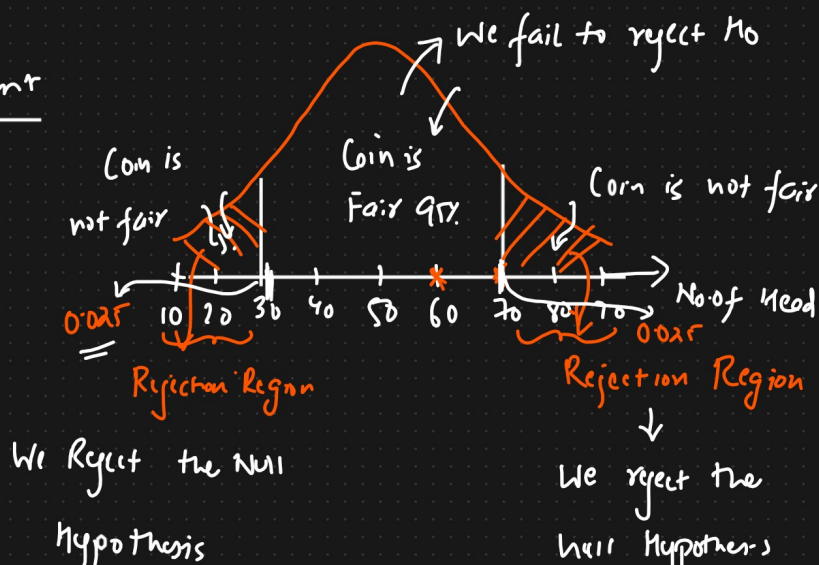
$$P(H) = 0.5 \quad P(T) = 0.5$$

② Alternate Hypothesis H_1 - Coin is not fair

$$P(H) = 0.6 \quad P(T) = 0.4$$

$$\rightarrow P(H) = 0.7 \quad P(T) = 0.3$$

③ Experiment



Significance value ; $\alpha = 0.05$

$$C.I. = 1 - 0.05 \\ = 0.95$$

Conclusion

$$P = 0.01 < \text{Significance}$$

We reject the Null Hypothesis

else

We fail to reject Null hypothesis