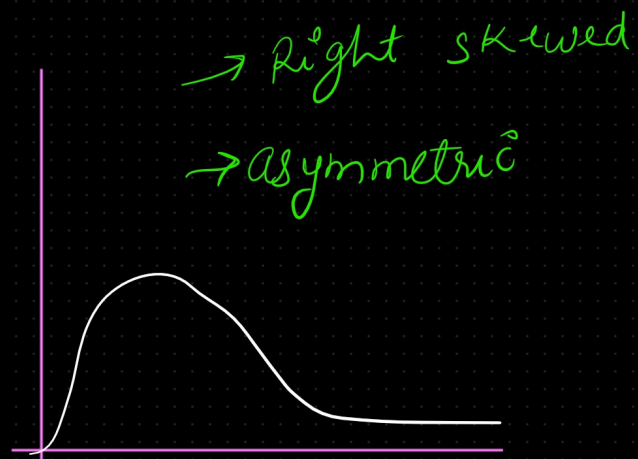chi- Square Test → categorical

↳ Goodness of Fit

→ The chi-square test is a statistical test used to determine if there is a significant association b/w the two categorical variable

→ Right skewed

→ asymmetric

$$X^2 = \sum \frac{(O - E)^2}{E}$$

↗ chi-squar

O = Observed Frequencies

E = Expected Frequencies

let say you are studying the
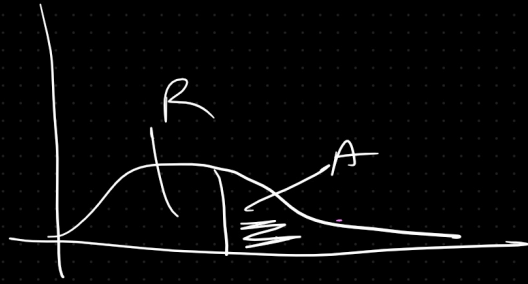relationship b/w smoking habit
and lung cancer.

Your observed data

	Lung - Cancer	No Lung Cancer
Smoker	50	30
Non - Smoker	20	70

F- test / F Ratio / F Distribution

→ The F- test is used for comparing
variances or means of two or more
groups.

$$F\ Ratio = \frac{Variances\ b/w\ groups}{Variances\ within\ groups}$$

Annova

Concept: ANOVA is an extension of the F test for comparing means of three or more groups. It assesses whether there are any statistically significant differences between the means of the groups.