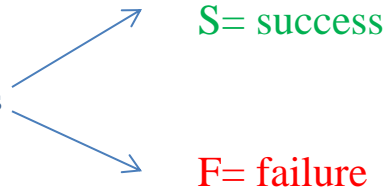


Summary of 4.3 & 4.4 page( 64 -71)

**Bernoulli Trial :**

Experiment with only two possible outcomes



<b>Discrete Distribution</b>		
	<b>Binomial</b>	<b>Poisson</b>
<b>parameters</b>	<b>n = trials</b> <b>P =probability of success</b>	<b>λ=average or mean</b>
<b>r.v</b>	<b>X = number of successes</b> <b>in n trials</b>	<b>X =</b> <b>number of occurrence</b> <b>of some event in an interval of</b> <b>time or space</b>
<b>Value of r.v</b>	<b>x = 0 , 1 , ..... , n</b>	<b>x = 0, 1, 2, ... ..</b>
<b>write</b>	<b><math>X \sim \text{Binomial}(n, p)</math></b>	<b><math>X \sim \text{Poisson}(\lambda)</math></b>
<b>Probability distribution</b> <b>P(X=x)</b>	$\binom{n}{x} p^x q^{n-x}$	$\frac{\lambda^x e^{-\lambda}}{x!}$
<b>Mean</b> <b>Expected</b> <b>μ</b>	<b><math>np</math></b>	<b><math>\lambda</math></b>
<b>Variance</b> <b>σ<sup>2</sup></b>	<b><math>npq</math></b>	<b><math>\lambda</math></b>
<b>standard deviation</b> <b>σ</b>	$\sqrt{npq}$	$\sqrt{\lambda}$