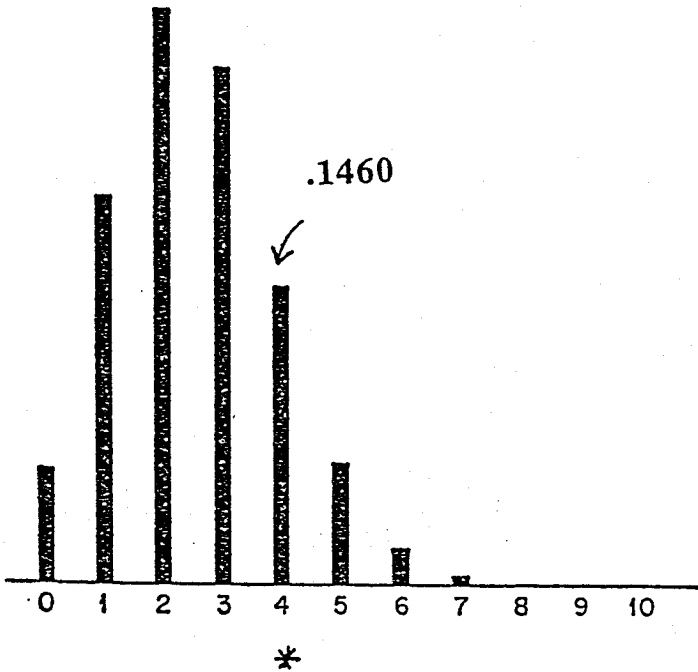
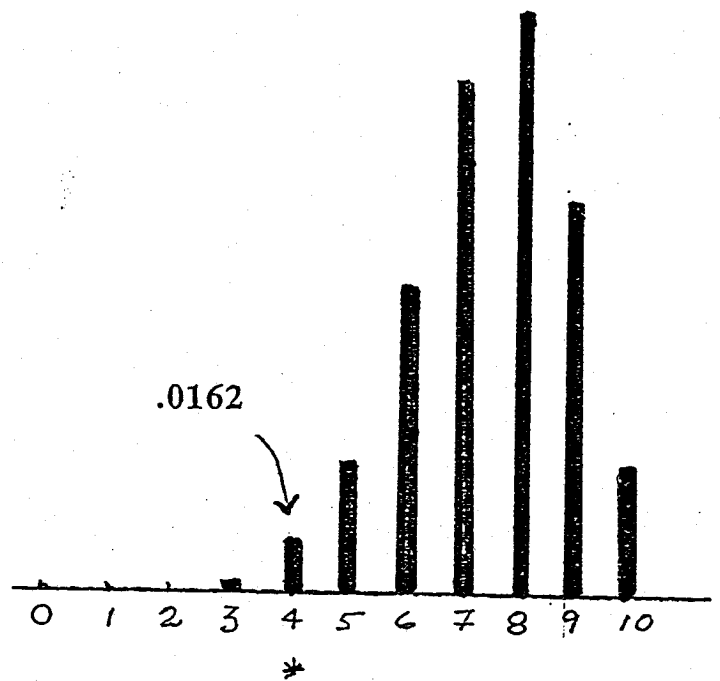


Binomial Distributions

(θ = Probability of "heads"; $\theta = .25$ or $\theta = .75$;
with probabilities depicted by bar lengths)



$n = 10 ; \theta = .25$



$n = 10 ; \theta = .75$

The maximum likelihood idea: Suppose we know that $\theta = .25$ or $\theta = .75$; but the value of θ is unknown, otherwise. If we observe exactly 4 "heads", and then we are required to choose a value of θ , which choice is reasonable ?