TI Instructions

How to find probabilities of Binomial Distribution:

Given: p=.4 and n=20 , Find P(x=6)

Steps	Instructions	Screen Shots
1	Press 2nd VARS	OFM S DRAW H normaledf(2:normalcdf(3:invNorm(4:invT(5:tedf(6:tcdf(7↓X²edf(
2	Now arrow down to A: binompdf(, then press ENTER to select This feature may appear as 0: binompdf(in some calculator.	OFMS DRAW 6↑tcdf(7:X²pdf(8:X²cdf(9:Fpdf(0:Fcdf(}#binompdf(B↓binomcdf(
3	Now enter the values for \mathcal{N} , \mathcal{P} , and \mathcal{X} . Make sure to separate them by , which is located directly above number 7 and close the expression by) which is directly above number 9.	binompdf(20,.4,6)∎
4	Press ENTER to complete the calculation.	binompdf(20,.4,6) .1244116992

Given: p=.4 and n=20 , Find $P(x \le 6)$

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2	Now arrow down to B: binomcdf(, then press ENTER to select This feature may appear as A: binomcdf(in some calculator.	OFFIG DRAW Officdf(A:binompdf(3Hbinomcdf(C:poissonpdf(D:poissoncdf(E:geometpdf(F:geometcdf(
3	Now enter the values for \mathcal{H} , \mathcal{P} , and \mathcal{X} . Make sure to separate them by , which is located directly above number 7 and close the expression by) which is directly above number 9.	binomcdf(20,.4,6)
4	Press ENTER to complete the calculation.	binomcdf(20,.4,6) .2500106719

You can covert these answers to an exact answer whenever possible by pressing MATH, followed by 1 for1: ► Frac, then ENTER twice.

Given: p = .4 and n = 20,

To Find	You need to do	Screen Shots
P(x < 6)	binomcdf $(n, p, x-1)$	binomcdf(20,.4,6 -1)
$P(x \ge 6)$	1 - binompcdf(n, p, x - 1)	1-binomcdf(20,.4 ,6-1)■
P(x > 6)	1 - binomcdf(n, p, x)	1-binomcdf(20,.4,6)

Binomial Distribution formula:

$$P(x=r) = {}_nC_rp^rq^{n-r}$$
 Given: $p=.4$ and $n=20$, Find $P(x=6)$
$$P(x=6) = {}_{20}C_6 {\: \bullet \: } (.4)^6 {\: \bullet \: } (.6)^4$$