I. Discrete *vs* Continuous Distributions:

1. A binomial distribution is _____
2. A normal distribution is _____
3. A binomial distribution may be "approximated" by the normal distribution provided that the number of trials "**n**" is **sufficiently large**.
4. Example 14 (pp.333-334), for Figure 6-34 find...

   $P(0) \approx 0.$_____ $P(2) \approx 0.$_____

   $P(1) \approx 0.$_____ $P(3) \approx 0.$_____

   where $P(r) = {}_nC_r \times p^r \times (1-p)^{n-r}$

   for Figure 6-35, why does the graph appear to stop after $r = 7$ (when $n = 10$)?

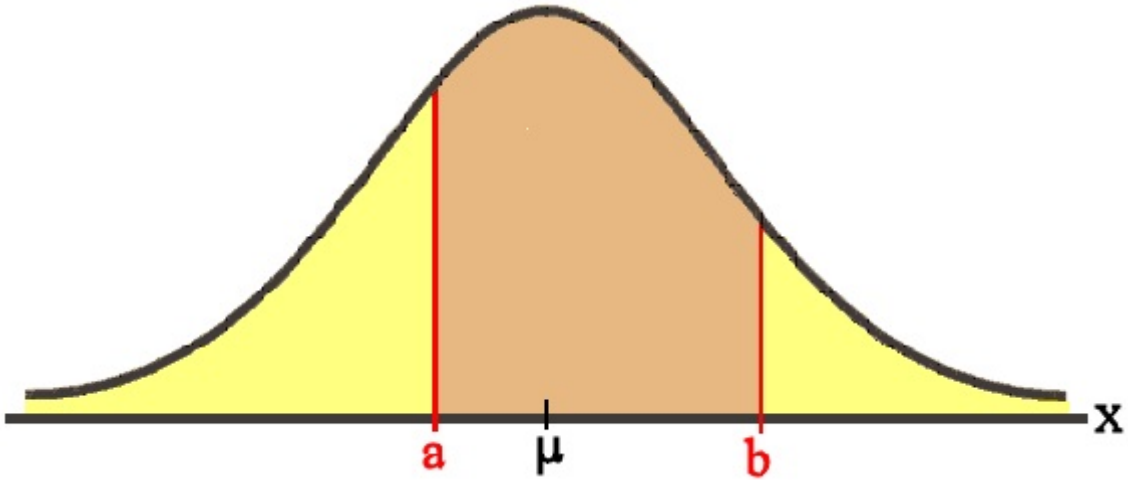
   find $P(8) \approx {}_{10}C_8 \times (0.25)^8 \times (0.75)^2 \approx 0.$_____

   and $P(9) \approx P(10) \approx$ _____ similar for graph 6-36 & 37
5. "n" size requirement* is, $n > 5 \div p$ & $n > 5 \div (1 - p)$

   (* reliable when "p" is **not** close to **0** or **1**)

II. Normal Distribution for Discrete Variables:

1. Continuous variable...



$P(a < \boldsymbol{x} < b)$ = probability that a random "***x***" value is between "a" and "b"

$P(a) =$ ___ and $P(b) =$ ___

2. Discrete variable (using "**continuity corrections**" / **p.335**)…

$P(a) = P(a-0.5 < \boldsymbol{x} < a+0.5)$

$P(b) = P(b-0.5 < \boldsymbol{x} < b+0.5)$

$P(a-0.5 < \boldsymbol{x} < b+0.5)$ = probability that a random "***x***" value is between "a" and "b"

III. Examples (pp.339-342): #4,6,10,**12**-P(35)

HW: pp.339-342 / #1,3,5,9,11,13abc,15