For Chapter 8

CAN YOU…

1. Identify a binomial distribution and defend your reasoning (4 qualities of a binomial dist.)
2. Identify a geometric distribution and defend your reasoning (4 qualities of a geometric dist.)
3. KNOW THE DIFFERENCE BETWEEN THE TWO!
   1. Binomial – Set number of trials, X = number of successes
   2. Geometric – Infinite trials until success, X = # of first successful trial
4. Calculate binomial probabilities (by hand **and** with a calculator)
   1. Know when to use pdf vs. cdf
   2. Be able to use the complement rule to calculate “greater than” probabilities
5. Calculate geometric probabilities (only pdf by hand **and** with a calc, cdf just with a calculator)
   1. Know when to use pdf vs. cdf
   2. Be able to use the complement rule to calculate “greater than” probabilities
6. Make a table to represent geometric/binomial distributions
7. Make a histogram to represent geometric/binomial distributions.
8. Calculate the mean (expected value of X) and standard deviation for binomial and geometric distributions.
9. Use the mean and standard deviation of binomial distributions to perform normal approximations when appropriate
10. Use the “rule of thumb” to determine the sample size needed for a normal approximation in a given problem.