Statistics 23, Section 1, Homework # 8

Due: Thursday, October 28, 1999

2.66 d, e (68%, 95%, 100%), f (75%, 94%, 100%) using Excel. {Hint: use the "Bin Frequency" part of "Histogram" to get counts}

5.19 c, d

5.26 (182)

5.40 (N, Y, Y, Y, N, Y) {Hint: drag Excel formulas, to eliminate retyping}

5.41 (note: on (c) use BINOMDIST, not the table)

5.42 (0.540, 0.731, 0.934)

5.43 for each of a, b, and c find:
- a. answer using Continuity Correction (0.487, 0.234, 0)
- b. answer not using Continuity Correction (0.5, 0.236, 0)
- c. relative differences (0.0259, 0.0102, 0) (Hint: see Class E.g. 12)

5.49

5.51

B14: Suppose 35% of a population favors Candidate A. Let X be the number, in a poll of n voters, who favor A.

(a) for $n = 100$, find $P\left\{\left|\frac{X}{n} - 0.35\right| < 0.01\right\}$ using the continuity correction (0.0835). [Hint: for cont. corr., rewrite as prob. About X).

(b) for $n = 100$, find $P\left\{\left|\frac{X}{n} - 0.35\right| < 0.01\right\}$ using *no* cont. Corr. (0.166)

(c) for $n = 100$, find c so that $P\left\{\left|\frac{X}{n} - 0.35\right| < c\right\} = 0.95$. (0.0935)

(d) find n so that $P\left\{\left|\frac{X}{n} - 0.35\right| < 0.01\right\} = 0.95$. (8,740)