Instructions

For each of the following problems,

(a) Write null and alternative hypotheses appropriate to this study.

(b) Compute the z-score of the sample mean.

(c) Compute the p-value of the sample mean.

(d) Are the results statistically significant at level $\alpha = .05$?

(e) What conclusions, if any, can be drawn from this study? Answer in ordinary human language.

Problem 1

A medical school advertises that the mean starting salary of its graduates is \$89,000. Concerned that it may actually be less, a group of first-years surveys 38 recent graduates, finding a sample mean of \$85,500. Assume $\sigma = \$8000$.