Math 257 Fall 2005
Quiz #2   Name:_____

You have 20 minutes to complete this quiz. Please answer all questions in the space provided.

In an effort to help the Regina City Council gauge the public's opinion about the strike by the Public Service Workers, you decided to investigate one of the groups most affected by the strike—the elderly—who are often dependent on public paratransit. You decided to visit the *Wascana Lodge*, a private residence of 60 elderly adults, to solicit their opinion. You were able to randomly select 6 individuals to interview.

You asked each the question, "On a scale of 1 to 10, with 1 being not affected and 10 being very affected, how would you rate the effect of the current strike by the City of Regina Public Service Workers on your daily life?"

The random sample of 6 residents yielded the following responses: $8, 8, 9, 1, 7, 9$.

(a) The data point 1 is obviously an outlier. Do you have any reason to believe that this response was given in error? Why or why not.

(b) Compute the sample mean for this data set.

(c) Compute the sample standard deviation for this data set.

(d) Construct an approximate 95% confidence interval for $\overline{Y}$, the true level of affectedness of residents of the *Wascana Lodge*.

(continued over)

(e) Based on your answers above, write a brief summary (3 sentences or less) to be delivered to the Regina City Council during their next session. [Remember that no city councillor took any university statistics classes.]