

1. -/10 points was MintoStat9 17.E.012.Tut.

A rum producer monitors the position of its label on the bottle by sampling five bottles from each batch. One quantity measured is the distance from the bottom of the label. The process mean should be $\mu = 1.8$ inches. Past experience indicates that the distance varies with $\sigma = 0.13$ inch.

(a) The mean distance $\bar{x}$ for each batch sample is plotted on an $\bar{x}$ control chart. Calculate the center line and control limits for this chart. (Round your answers to the

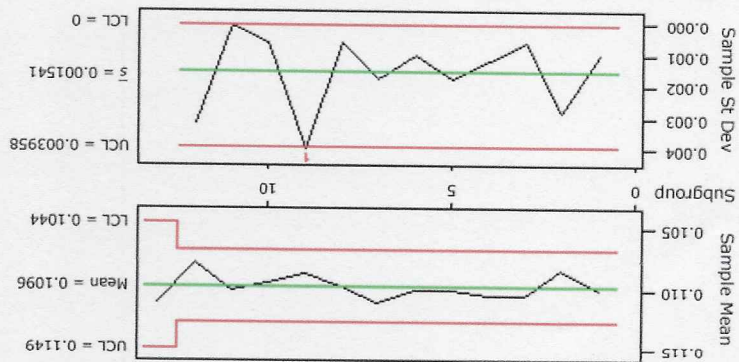
CL = in
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(b) The sample standard deviation s for each batch's sample is plotted on an s control chart. What are the center line and control limits for this chart? (Round your

CL = in
LCL = in
UCL = in

2. -/10 points MintoStat9 17.E.506.XP.

A company is studying their processes and for one of these processes the acidity of the mixture is critical. They have obtained the following control charts.



These graphs indicate which of the following?

- ☐ s is in control, $\bar{x}$ is not.
☐ $\bar{x}$ is in control, s is not.
☐ Both are in control.

3. -/10 points MintoStat9 17.E.520.XP.

A school tracks the absences of pupils as part of a flu surveillance system. Regular reporting of absences among 22 students in grade 1 are taken, and based on these data, the long-run proportion of absences under normal conditions is estimated to be $\bar{p} = 0.071$. What is the upper control limit for a p chart of future absences from this class of size 22?

- ☐ 0.235
☐ 0.841
☐ 0.687
☐ 0.241