In class we reviewed some statistical concepts of sampling. We also demonstrated how to create the Xbar chart for the Clean Sweep, Inc. case study in Chapter 6.

In the Clean Sweep, Inc. Xbar chart construction, the problem employed a ± 3 standard deviation (σ) control limits (by convention for this type of charts – see p. 124 of text). By using the ± 3 σ, the control limits will represent a 99.7% confidence interval for the performance measure (number of complaints in this case). These control limits indicate that it is acceptable to have more than 3.52 complaints per month by a team 3 months out of 1000 months.

I inadvertently referred to the ± 3 σ control limits as Six Sigma. ***That is incorrect*** (thanks to L.L. for pointing that out.)

"Six Sigma is a rigorous and disciplined *methodology* that uses data and statistical analysis to measure ad improve a company' operational performance by identifying and eliminating defects to enhance customer satisfaction." F&F p.157.

This methodology employs a very stringent control limit of ± 6 σ which represents a 99.9997% confidence interval for the performance measure. This equates to approximately 3.4 errors (outside the set limits) per million samples.