Class Activities

# Chapter 6: Quality Improvement and Control Tools

**Activity 1: Individual Exercise**

Learning objective: Apply the various tools for appraising the quality of products and processes.

A frozen pepperoni pizza manufacturer received customer complaints that there are too few pepperoni slices in the pizza. Some have reported counting the total number of pepperoni slices to be less than 20 slices in a pizza. No one has ever complained about having too many pepperoni slices. Each student is given copies of the complaint letters and asked to investigate the complaints. Discuss what tools to use to identify the root causes of the problem and how to resolve the complaints. Be prepared to share individual findings with the rest of the class.

**Activity 2: Online Activity**

Learning objective: Apply the various tools for preventing defects in products and processes, including control charts, a process capability analysis, and how to calculate Six Sigma levels of quality

Play the Quincunx game at http://www.mathsisfun.com/data/quincunx.html before reading “Quincunx Explained”. Explain what a normal distribution is and how it serves as the basis for statistical quality control methods on the discussion board. Each student will comment on three other students’ postings.

**Activity 3: Online Activity**

Learning objective: Apply the various tools for preventing defects in products and processes, including control charts, a process capability analysis, and how to calculate Six Sigma levels of quality

A chemical manufacturer is contemplating having its employees six sigma certified. Your assignment is to get information from the Internet on the six sigma certification process. Prepare a report detailing the what, why, and how of six sigma certification and if such certification will be beneficial for the chemical manufacturer and post it on the discussion board. Each student will comment on three other students’ postings.