END3032 – SYSTEMS SIMULATION

# THE FURNITURE FACTORY PROBLEM

Laboratory Practice #3

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## The Furniture Factory Problem

Wooden logs are received at the receiving dock of the furniture factory at the rate of **1 every 10 minutes**. Logs go to the splitter, where **three pieces** are made from each log. The splitting time is **normally** distributed with a mean of **4 minutes** and a standard deviation of **1 minute**. Individual pieces go to the lathe, where they are turned for another **Triangular (3, 6, 9) minutes** and made into rounds. The rounds go on to a paint booth, where they are converted into painted logs. Painting takes **5 minutes** according to an **exponential distribution**. Painted logs go to the store. Consider a material handling time of **1 minute** between each process.

Make a simulation model and run the simulation for 1000 hours.