A small factory consists of a machining center and inspection station in series. Unfinished parts arrive to the factory with exponential times having mean of 2 minutes. Processing times at the machine are uniform on the interval [0.75, 0.80] minutes, and subsequent inspection times at the inspection station are uniform on the interval [0.75, 0.80]. Ninety percent of inspected parts are “good” and are sent to shipping; 10 percent of the parts are “bad” and are sent back to the machine for rework. Both queues are assumed to have infinite capacity.

Let be a random variable representing the number of parts produced during the *i*th hour. Generate 10,000 ’s and compute ten sample means and sample variances using 1,000 ’s each, respectively. Comment on the convergence of  to the steady-state distribution.

You can use wither Arena or Excel for this simulation. Please submit your arena or excel file with your solution.