

ITM529. Stochastic Processes

Short Quiz 2, 2025F, Weighting of 5%

Name: []

#1. We want to decide whether to employ a human operator or buy a machine to paint steel beams with a rust inhibitor. Steel beams are produced at a constant rate of one every 14 minutes. A skilled human operator takes an average time of 700 seconds to paint a steel beam, with a standard deviation of 300 seconds. An automatic painter takes on average 40 seconds more than the human painter to paint a beam, but with a standard deviation of only 150 seconds. Which system is better and why? [5pt]