CENG222

Statistical Methods for Computer Engineering – Spring 2020-2021

Homework 4 – Report

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The size of the Monte Carlo study is determined to be 21140 since the formula

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I found the m value from plotting the pmf’s.

With the help of conducting a Monte Carlo study, we see that the estimated probability is around 0.12 – 0.13. We see that the expected weight is around 598-599 and finally we see that the standart deviation of the weight is around 35.7-35.8.

So the total weight of the plastics by the factory in a week of five workdays exceeds 640 tons by around 0.12-0.13 probability. This means that a violation of regulations is in place with that probability.

We have used approximetly 22000 random numbers. We know that when the size get bigger, the accuracy of our Monte Carlo study increases.