COMPENG 4DK4 Lab 4 Report

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Random Number Generator Seeds

For the experiments in this lab, we used the same set of 8 random number seeds for all experiments. Experiment 1 instructs us to include runs with our *McMaster Student ID numbers* as our seeds. We used our *McMaster IDs* and shifted them by one digit at a time to create 4 different seeds from each our IDs, for a total of 8 different seeds. All the random number generator seeds can be seen in Table ??. In the C code used for the experiments, leading zeroes are removed.

400188200	400190637
001882004	001906374
018820040	019063740
188200400	190637400

Table 1: Random Number Generator Seeds

- Experiment 2
- Experiment 3
- Experiment 4

Mean Delay vs. PACKET_ARRIVAL_RATE

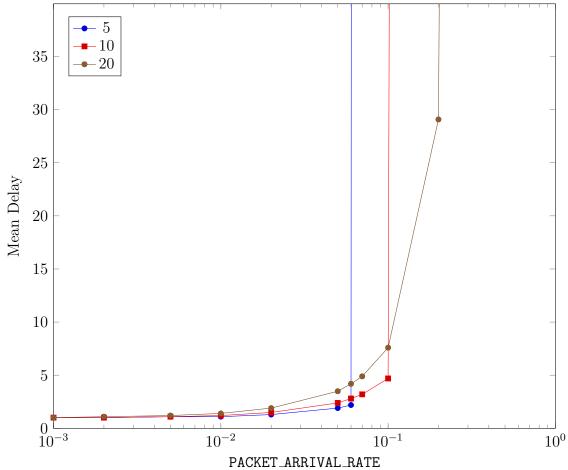


Figure 1: Experiment 2: Mean Delay vs. Packet Arrival Rate with 10 Stations

Figure 2: Experiment 2: Mean Delay vs. Packet Arrival Rate with 5 Stations

PACKET_ARRIVAL_RATE

 10^{-1}

 10^{0}

 $\overline{10^{-2}}$

5

 0^{-3} 10^{-3}

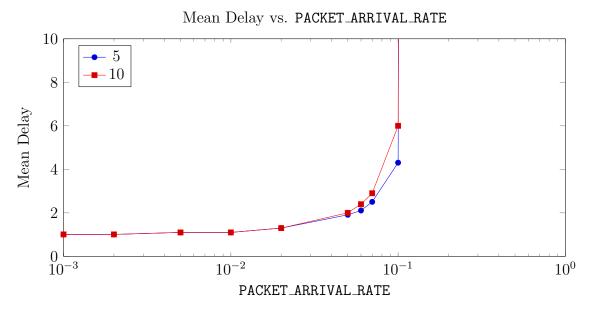


Figure 3: Experiment 3: Mean Delay vs. Packet Arrival Rate

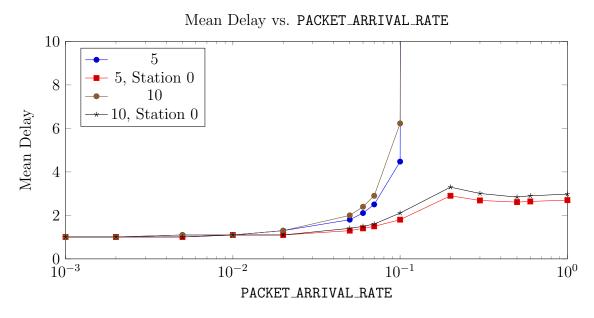


Figure 4: Experiment 4: Mean Delay vs. Packet Arrival Rate