

15-857/47-774 Homework 7: M/M/k, M/M/k/k

Homework is due at the *start* of Friday's class. You have 2 full weeks, due to Fall break, so this is only due 10/24. We grade your homework right away, so please don't be late. If you're having problems, please go to office hours. Feel free to collaborate with other students, but you should write up your own solutions. It is good form to list the names of people with whom you collaborate.

These problems are from your textbook, *Performance Modeling and Design of Computer Systems*. Starred problems are either not in your textbook, or have some modifications, given below.

Exercises: 11.12; 13.11; 14.2; 14.3; 14.6*; 14.7; 25.12; 25.13

Exercise 14.6*: [Is Load Balancing Good?]

The problem talks about $\mathbf{E}[T]$ and $\mathbf{E}[T_Q]$. You can ignore the $\mathbf{E}[T_Q]$ parts throughout and only do the problem for $\mathbf{E}[T]$.