

Sorting of mail

As an illustration of tandem queues, we consider the flow of mail through a sequence of sorters in a post office. Here the ‘customers’ are letters and the servers are the mail sorters. If there is a fixed total number of mail sorters, all of whom can sort mail at the same continuous rate at any of the sorting stages and the arrival rate of letters to the first of n sorting stages is given, how should the sorters be distributed among the n stages so as to minimize the total letter delay through the n stages.

Assume we have a total of 5 stages and 10 mail sorters.