

SSIE 660: Stochastic Systems

Homework assignment 6

Oct. 24th, 2016

Due: Oct. 31st, 2016, Before class starts

1. The demand per day of a certain item obeys the following probability distribution.

Demand	Probability
0	0.3
1	0.3
2	0.2
3	0.1
4	0.1

The ordering policy is as follows. 1) If the inventory at the end of the day is 0, order 4; 2) If the inventory at the end of the day is 1, order 3; 3) Otherwise, do not order. Assuming that the replenishment is immediate (will be fulfilled at the beginning of the next day), find the transition probability matrix.

2. Solve Chapter 4. Problem 1.
3. Solve Chapter 4. Problem 2.
4. Solve Chapter 4. Problem 3.
5. Solve Chapter 4. Problem 5.
6. Solve Chapter 4. Problem 7.