

## Homework #8

**Supply Chain Models: Manufacturing & Warehousing (ISyE 3104) - Fall 2001**  
**Due October 31 (Wednesday) at noon, 2001**

Show all your steps to get credit.

**Reading assignment:** Read Chapter 5, and the first two sections of Chapter 7.

A. Consider problem 20 of Chapter 5.

1. (8 points) Solve parts (b) and (c).
2. (5 points) What policy should Bobbi use if the stockout cost is replaced with a Type 1 service objective of 90%?
3. (7 points) Suppose Bobbi wants to use a Type 2 service objective of 98% instead of the stockout cost. If he uses EOQ for the order quantity, what is the reorder level? What is the stockout penalty cost corresponding to this service level?
4. (14 points) If Bobbi solves for Q and R optimally (under type 2 service level of 98%), what is the policy? What is the stockout penalty cost corresponding to this service level?
5. (6 points) Compute the expected cost of the policies you found in 3 and 4.

B. (15 points) For the trumpet example we solved in class, determine the planned order release for the slide assemblies, assuming EOQ lot sizes. What is the total cost of setup and holding?