

Homework #11

Supply Chain Models: Manufacturing & Warehousing (ISyE 3104) - Fall 2001
Due November 29, 2001

Show all your steps to get credit.

Reading assignment: Read Chapters 1, 2, 3, 5 and 8 of the Bartholdi-Hackman book.

1. Answer the following questions from the Bartholdi-Hackman book. The URL is http://www.isye.gatech.edu/people/faculty/John_Bartholdi/wh/book/wh.pdf
 - (a) (5 points) Question 8.3
 - (b) (5 points) Question 8.4
 - (c) (9 points) Question 8.9 parts (a), (b) and (c).
 - (d) (7 points) Using the data in 8.11, decide which of the SKUs in Question 8.9 should be put into the fast-pick area, and how the space should be allocated.
2. Consider the following requirements and capacities for making a product:

Week	1	2	3	4	5	6	7	8	9
Requirements	100	130	50	70	90	200	170	20	60
Capacity	120	120	120	100	120	120	150	80	100

- (a) (5 points) Explain why the lot-for-lot policy is not feasible.
- (b) (5 points) Find a feasible lot sizing policy.
- (c) (5 points) Try to improve the policy you found in part (b). The setup cost is \$200 and the holding cost is \$1/unit/week.