Math. Methods in Decision Making
D Term, Sections D01-D02
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April 12, 2004

Decision Making Assignment 4

DUE DATE: Thursday, April 15, by 4pm in the course mailbox, SH108. (This mail slot has a dayglo pink label "MA2210 Assignments".)

Please keep in mind Professor Martin's basic rules for composing and presenting assignments.

1.) *[10 points]* Solve Problem 16 on page 435-6. (Note that the value of the max. flow is given in the back of the book, but you will be graded on how you find the actual flow and how you explain your steps.)

2.) *[10 points]* Solve Problem 18 on p436-7 in the text. Again, show your steps!

3.) *[10 points]* Returning to the final auxiliary network in Problem 18, part (a). Suppose now that a contractor will pay $50,000 for you to enhance your network so as to increase flow from 10,000 to 13,000 gallones per hour. Here are your alternatives and their costs:

New line	**1–3**	**2–6**	**3–7**	**4–5**
First 1000 1000 gals/hr	$10,000	$5,000	$20,000	$2,000
Each Additional 1000 gals/hr	$5,000	$5,000	$10,000	$1,000

Given the $50,000 funding, can you devise a cost-effective way to revise your network so as to increase overall flow to the desired 13,000 gallon per hour level? Explain.

4.) *[10 points]* Solve Problem 7 on p467.

5.) *[10 points]* Solve Problem 9 on p467-8.