

This problem must be solved by you *individually*. Do not consult with any other persons in working out the solution.

The first five students with correct solutions will be awarded 5 bonus points, to be added to their HW scores. All entries should be received by *February 17, 2004*.

PROBLEM #1:

In the manufacture of two-pants suits, cutting patterns can be arranged in four different ways on bolts of cloth. For example, in the table below the layout of pattern 1 yields 90 pants *and* 35 coats per bolt. The manufacturer has available 1000 bolts of cloth. What combination of patterns will yield as many *complete* suits (consisting of one coat plus two pants) as possible?

pattern	number per bolt	
	# pants	# coats
1	90	35
2	80	55
3	70	70
4	60	90

- Formulate as a linear programming problem. Explain your logic and list any assumptions that you are making.
- Using LINDO, determine an optimal solution to this problem. Explain in words the optimal policy to follow.