Problem 2*

The Pelletier Corporation has just discovered that it will not have enough warehouse space for the next five months. The additional warehouse space requirements for this period are:

Month	1	2	3	4	5
Additional Space Needed	25	10	20	10	5

(in 1000 sq ft)

To cover its space requirements, the firm plans to lease additional warehouse space on a short-term basis. Over the next five months, a local warehouse has agreed to lease Pelletier any amount of space for any number of months according to the following cost schedule.

Length of Lease (in months)	1	2	3	4	5
Cost per 1000 square feet	$300	$525	$775	$850	$975

This schedule of leasing options is available to Pelletier at the beginning of each of the next five months. For example, the company could elect to lease 5,000 square feet for 4 months beginning in month 1 (at a cost of $850 × 5) and lease 10,000 square feet for 2 months beginning in month 3 (at a cost of $525 × 10).

a. Formulate an LP model for this problem.
b. Create a PuLP model for this problem and solve it using Solver.
c. What is the optimal solution?