

# System of linear equations

Solve the following optimization problem

$$\min_{x_i} \sum_i c_i x_i$$

$$\sum_i a_{mi} x_i \geq b_m$$

$$\min_{x_i} \quad \overset{\text{C}}{[7 \quad 12]} \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$$

$$\overset{\text{A}}{\begin{bmatrix} 3 & 4 \\ 2 & 5 \end{bmatrix}} \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} \geq \overset{\text{B}}{\begin{bmatrix} 4 \\ 2 \end{bmatrix}}$$

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**C**

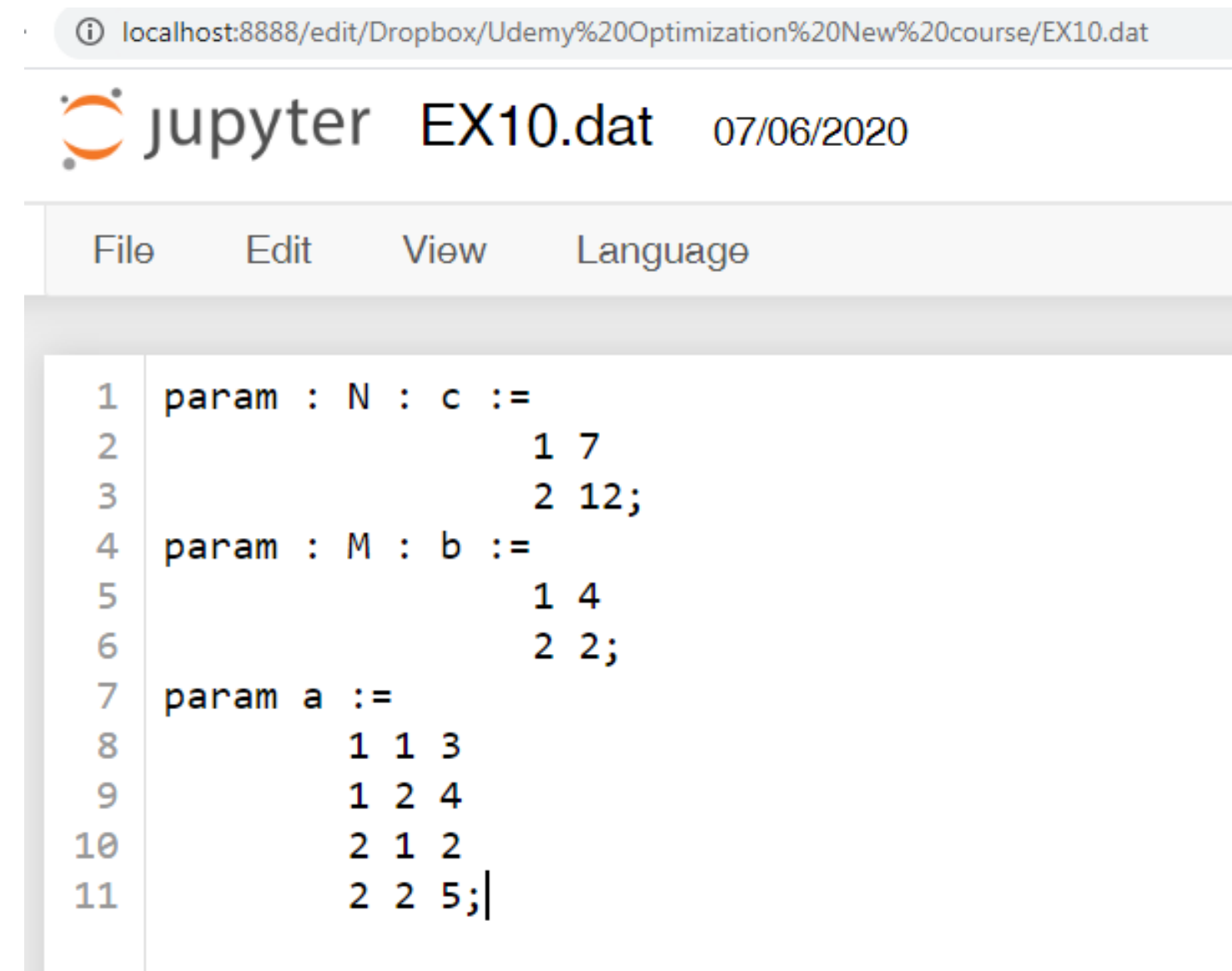
$$\min_{x_i} [7 \quad 12] \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$$

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**A**

**B**

Ex10



The screenshot shows a Jupyter Notebook window titled "EX10.dat" with a timestamp of "07/06/2020". The interface includes a menu bar with "File", "Edit", "View", and "Language". The code editor displays the following AMPL syntax:

```
1 param : N : c :=
2           1 7
3           2 12;
4 param : M : b :=
5           1 4
6           2 2;
7 param a :=
8           1 1 3
9           1 2 4
10          2 1 2
11          2 2 5;
```