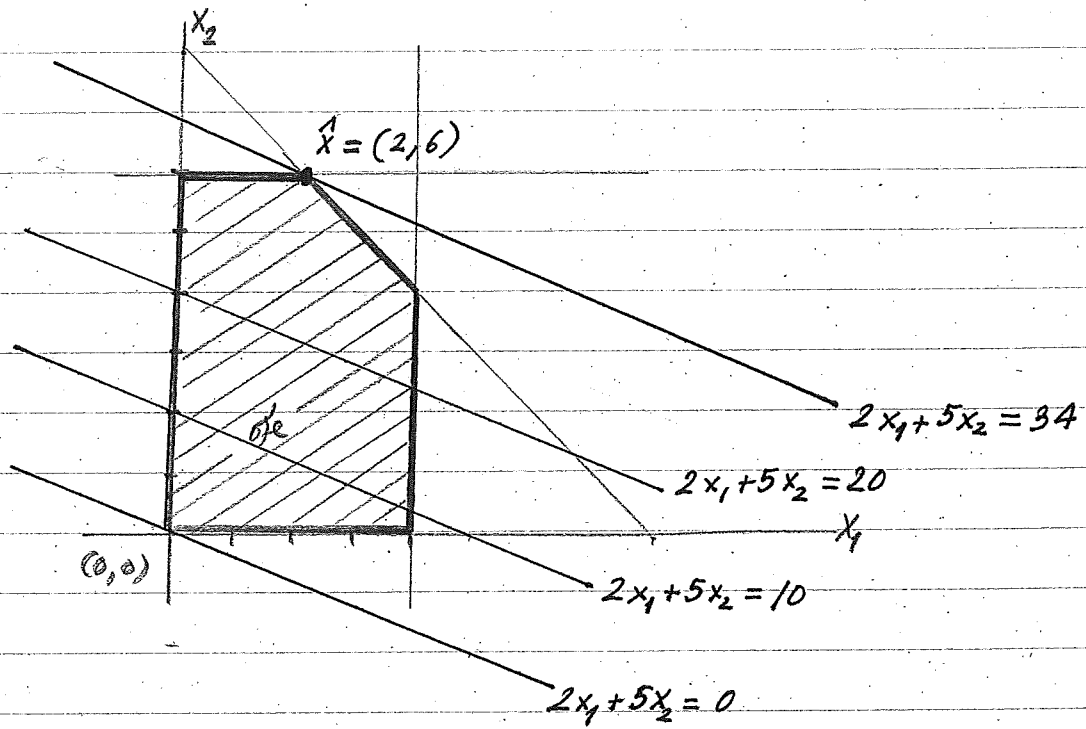


Exercise 2.1

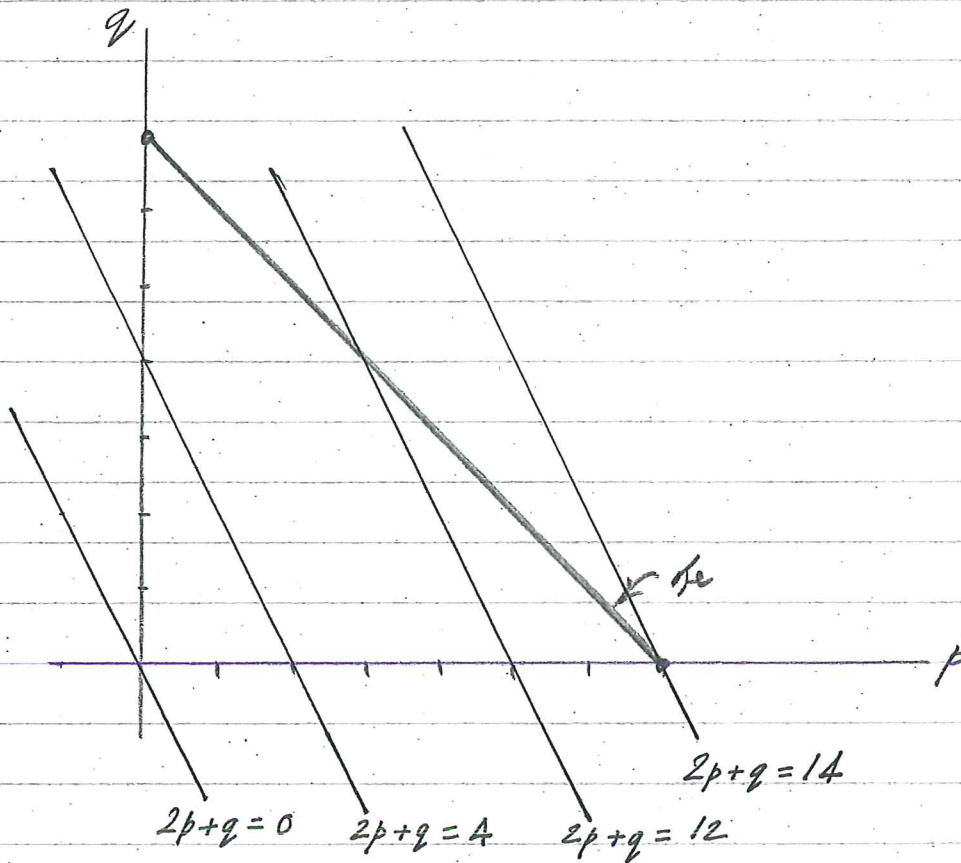


The optimal solution is given by  $x_1 = 2, x_2 = 6$ .

Exercise 2.2.

The problem can be rephrased as:

$$\left\{ \begin{array}{l} \text{maximize } 2p+q \\ \text{subject to } 4p+4q=28, \\ p \geq 0, \\ q \geq 0. \end{array} \right.$$



So the optimal arrangement is as follows:

$$p=7, q=0$$

7	0	7
0	0	0
7	0	7