Exercise (1) Solution:

x_1: the number of aircraft type (A) that will be used

x_2: the number of aircraft type (B) that will be used

objetive function (Z)

(Min) $Z = 800000\ x_1 + 200000\ x_2$

Constraints:

$200\ x_1 + 100\ x_2 \geq 1600$

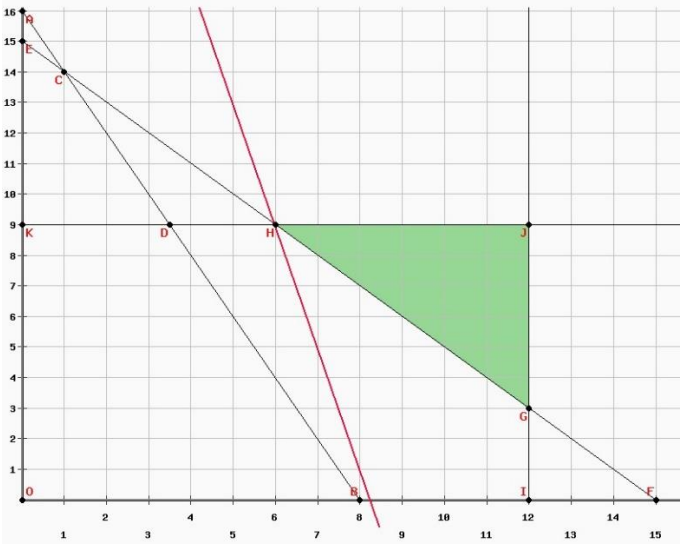
$6\ x_1 + 6\ x_2 \geq 90$

$x_1 \leq 12$

$x_2 \leq 9$

$(x_1 , x_1) \geq 0$

Graphical Solution:



Point	Value of the objetive function (Z)
H (6 , 9)	Z = 6600000
J (12 , 9)	Z = 11400000
G (12 , 3)	Z = 10200000

Exercise (2) Solution:

x_1: the number of monthly production of trucks type (A)

x_2: the number of monthly production of trucks type (B)

objetive function (Z)

(Max) $Z = 4000\ x_1 + 8000\ x_2$

Constraints:

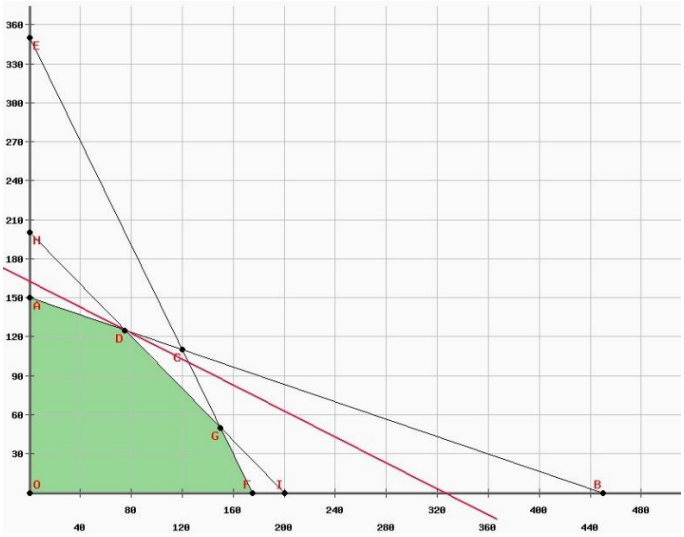
$1\ x_1 + 3\ x_2 \leq 450$

$2\ x_1 + 1\ x_2 \leq 350$

$1\ x_1 + 1\ x_2 \leq 200$

$(x_1 , x_1) \geq 0$

Graphical Solution:



Point	Value of the objetive function (Z)
O (0 , 0)	0
A (0 , 150)	1200000
D (75 , 125)	1300000
G (150 , 50)	1000000
F (175 , 0)	700000