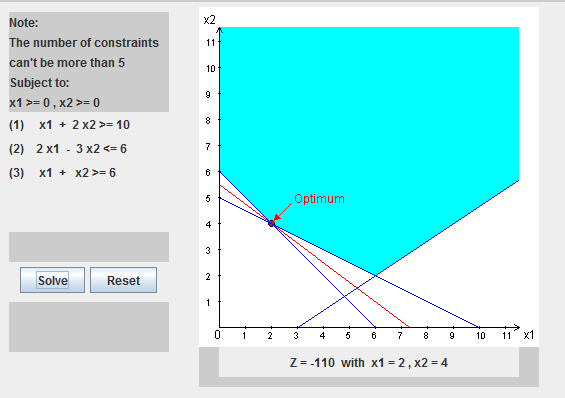
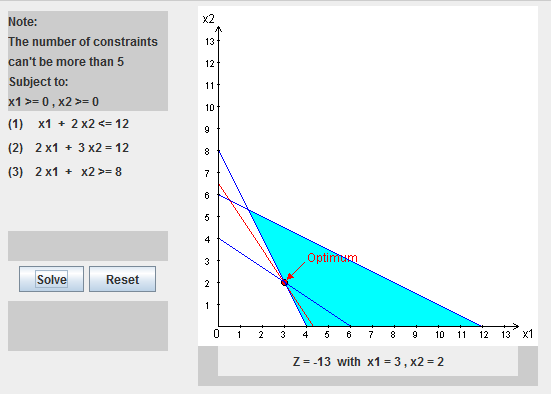
## 3.4-4



## 3-4-5



## 3.4-8

### (a)

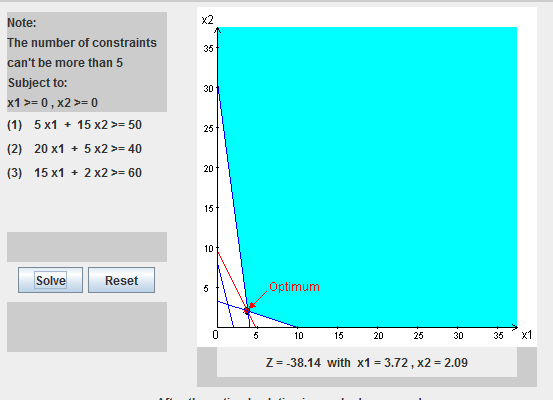
Objective:

Min

Constraints:

### (b)

To minimize his cost, Ralph Edmund should eat 3.72 steaks and 2.09 potatoes per day for a cost of $38.14.



## 3.4-15

### (a)

Objective:

Constraints:

### (b)

To minimize cost,

K.C. should work 2 hrs. M, 0 hrs. T, 4 hrs. W, 0 hrs. R, and 3 hrs. F.

D.H. should work 0 hrs. M, 2 hrs. T, 0 hrs. W, 6 hrs. R, and 0 hrs. F.

H.B. should work 4 hrs. M, 7 hrs. T, 4 hrs. W, 0 hrs. R, and 4 hrs. F.

S.C. should work 5 hrs. M, 5 hrs. T, 5 hrs. W, 0 hrs. R, and 5 hrs. F.

K.S. should work 3 hrs. M, 0 hrs. T, 1 hrs. W, 3 hrs. R, and 0 hrs. F.

N.K. should work 0 hrs. M, 0 hrs. T, 0 hrs. W, 5 hrs. R, and 2 hrs. F.

*See Excel.*

## 3.5-3

### (a)

Objective:

Max

Constraints:

### (b)

*See Excel.*

### (c)

Spare part C has the longest machine time as well as the lowest profit. As such, I would not expect to see that part produced.

Guess 1: A=500, B=200, C=0

Feasible, profit is $33,000

Guess 2: A=200, B=500, C=0

Feasible, profit is $30,000

Guess 3: A=1000, B=0, C=0

Not feasible

### (d)

To produce the maximum profit of $61,818.18, Bilco Corporation should produce 363.63 batches of spare part A, 1,090.91 batches of spare part B, and 0 batches of spare part C.

*See Excel.*

## 3.5-6

### (a)

Objective:

Min

Constraints:

### (b)

*See Excel.*

### (c)

This mix of investments would generate $400M in 5 yrs., $300M in 10 yrs., and $550M in 15 years at a total cost of $400M.

### (d)

I chose to invest in 175 units of Asset 1, 100 units of Asset 2, and 75 units of Asset 3 for a total cost of $350M.

### (e)

*See Excel.*

### (f)

*See Excel.*