## Assignment7a:

Date	Time	Load(kw)
01.09.2013	0:0	5551.822
0.1.092018	1:10	4983.172

Day-1(x)	Day-2(y)
5551.82208	4931.26380
4983.17184	4775.53968

```
1) Read dataset \eta = 0.1 epochs = 2, m = 1 and c = -1, n = 2, v_m= 0, v_c = 0
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- 2) Set iteraton = 1
- 3) Set sample i = 1

4) 
$$Y = 1(5551.82208) - 1 = 5550.82208$$

$$dE/dc = -(4931.26380-1(5551082208)+1)$$

6) 
$$v_m = 0.9(0)-(0.1)(3439677.339)$$

$$v_c = 0.9(0)-(0.1)(619.55828)$$

7) 
$$m = 1 + (-343967.7339)$$

= -343966.7339

$$C = -1 + (-61.955828)$$

= -62.955828

8) sample 
$$i = i + 1 = 2$$

9) 
$$y = (-343966.7339)(4983.17184) + (-62.95583)$$

= -1714045405

10) 
$$dE/dm = -(4775.53968-(-343966.734)(4983.17184) - (-62.95583))4983.17184$$

= -854140659607.112

$$dE/dc = -((4775.53968)-(-343966.734)(4983.17184))-(-62.95583))$$

= -1714050181.261

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11) v_m = 0.9(-343967.734)-(0.1)(-8541406595067.112)
     = -854140969131.67
  v_c = 0.9(-61.95583)-(0.1)(-171450181.261)
     = -17140503.88634
12) m = -343966.734 - 854140969131.67
     = -62.9583
13) Iteration + 1 = 2, sample = 1
14) y = -(-854141313098.4)(5551.82208)+(-62.95583)
    = -4.7420406014E15
15) dE/dm = -(4931.26380 + 4.7420406014E15)(5551.82208)
          = -2.63269657156E19
  dE/dc = -4.74204060150E15
16) v_m = (0.9)(-85414096131.67)-(0.1)(-2.63226965715E19)
     = 2.6326958e18
   v_c = (0.9)(-171405073.88634)-(0.1)(-4.74204060150E15)
     = 4.74203906E14
17) m = -854141313098.4 + 2.6326958E18
     = 2.63269495E18
   c = -62.95583 + 4.74203906E14
     = 4.74203906e14
18) sample = i + 1 = 2
19) y = (2.63269495E18)(4983.17184)+4.74203906E14
   y = 1.31191718E22
20) dE/dm = -((4775.53968-(2.63269495E18)(4983.17184)-4.741203906E14))(4983.17184)
          = -(4775.53968-1.31191718E22)(4983.17184)
          = -6.53750875E25
   dE/dc = -(4775.53968-1.31191718E22)
         = -1.31191718E22
21) ) v_m = (0.9)(2.6326958E18)-(0.1)(-6.53750875E25)
      = 6.5375112E24
   v_c = (0.9)(4.74203906E14)-(0.1)(-1.31191718E22)
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## = 1.31191761e21

22) m = 2.63269495E18 + 6.5375112E24

= 6.53751375E24

c = 4.74203906E14 + 1.31191761E21

= 1.31191808E21