Z=[62.8 43.41 17.10 3.96;

65.0 46.44 18.65 5.48;

63.9 44.35 17.09 4.37;

67.5 47.82 19.28 4.51;

71.3 51.02 23.24 4.88;

67.6 58.71 28.11 6.37;

86.3 87.69 30.29 8.96;

95.7 76.73 28.26 9.76;

98.3 75.91 27.91 9.31;

100.3 77.62 32.30 9.85;

103.2 78.01 31.39 7.21;

108.9 83.57 35.61 7.39;

108.5 90.59 37.58 7.98;

111.4 95.47 35.17 7.42]

>> Z

Z =

62.8000 43.4100 17.1000 3.9600

65.0000 46.4400 18.6500 5.4800

63.9000 44.3500 17.0900 4.3700

67.5000 47.8200 19.2800 4.5100

71.3000 51.0200 23.2400 4.8800

67.6000 58.7100 28.1100 6.3700

86.3000 87.6900 30.2900 8.9600

95.7000 76.7300 28.2600 9.7600

98.3000 75.9100 27.9100 9.3100

103.2000 78.0100 31.3900 7.2100

100.3000 77.6200 32.3000 9.8500

108.9000 83.5700 35.6100 7.3900

108.5000 90.5900 37.5800 7.9800

111.4000 95.4700 35.1700 7.4200

>> n

n =

14

>> n

n =

14

>> k

k =

4

>> V

V =

1.0e+05 \*

1.0948 0.8719 0.3465 0.0882

0.8719 0.7010 0.2776 0.0708

0.3465 0.2776 0.1108 0.0280

0.0882 0.0708 0.0280 0.0073

>> M

M =

86.4786 68.3814 27.2843 6.9607

>> b

b =

0.5148

1.5557

1.1177

>> b1

b1 =

1.0474

>> b1=M(1,1)-M(1,2:4)\*b

b1 =

1.0474

>> e=Z(1:14,1)-Z(1:14,2:4)\*b

e =

9.4225

5.9524

9.5959

7.8459

3.4244

-13.4762

-15.9826

1.3240

5.3936

6.1458

-0.9197

2.2171

-5.5212

-0.7586

>> e=Z(1:14,1)-b1-Z(1:14,2:4)\*b

e =

8.3751

4.9050

8.5485

6.7986

2.3770

-14.5236

-17.0300

0.2766

4.3462

5.0984

-1.9671

1.1697

-6.5686

-1.8059

>> S=(e'\*e)/(n-k)

S =

81.6709

>> Tss=V(1,1)-n\*M(1,1)^2

Tss =

4.7830e+03

>> Ess=b'\*V(2:4,1)-n\*M(1,1)^2

Ess =

3.9509e+03

>> Rss=Tss-Ess

Rss =

832.0675

>> Rsq=Rss/Tss

Rsq =

0.1740

>> Rbarsq=1-((n-1)/(n-k))\*(1-Rsq)

Rbarsq =

-0.0738

>> Y=Z(1:14,1)

Y =

62.8000

65.0000

63.9000

67.5000

71.3000

67.6000

86.3000

95.7000

98.3000

103.2000

100.3000

108.9000

108.5000

111.4000

>> X=Z(1:14,2:4)

X =

43.4100 17.1000 3.9600

46.4400 18.6500 5.4800

44.3500 17.0900 4.3700

47.8200 19.2800 4.5100

51.0200 23.2400 4.8800

58.7100 28.1100 6.3700

87.6900 30.2900 8.9600

76.7300 28.2600 9.7600

75.9100 27.9100 9.3100

78.0100 31.3900 7.2100

77.6200 32.3000 9.8500

83.5700 35.6100 7.3900

90.5900 37.5800 7.9800

95.4700 35.1700 7.4200

>> var=S\*inv(X'\*X)

var =

0.2135 -0.4155 -0.4730

-0.4155 1.0136 0.1400

-0.4730 0.1400 4.1363

>> corr(Z)

ans =

1.0000 0.9339 0.9155 0.7578

0.9339 1.0000 0.9431 0.8107

0.9155 0.9431 1.0000 0.7371

0.7578 0.8107 0.7371 1.0000

>> SE=sqrt(diag(var))

SE =

0.4620

1.0068

2.0338

>> var=S\*inv[(Z(1:14,2:4)')\*(Z(1:14,2:4))]

var=S\*inv[(Z(1:14,2:4)')\*(Z(1:14,2:4))]

|

Error: Unbalanced or unexpected parenthesis or bracket.

>> var=S\*{inv[(Z(1:14,2:4)')\*(Z(1:14,2:4))]}

var=S\*{inv[(Z(1:14,2:4)')\*(Z(1:14,2:4))]}

|

Error: Unbalanced or unexpected parenthesis or bracket.

>> eign(V(2:4,2:4))

Undefined function 'eign' for input arguments of type 'double'.

Did you mean:

>> eig(V(2:4,2:4))

ans =

1.0e+04 \*

0.0019

0.0070

8.1819

>> K=8.1819/0.0070

K =

1.1688e+03

>> c=sqrt(K)

c =

34.1883

>> b(2,1)/b(3,1)

ans =

1.3919