ii) Change the element a_{13} by small amounts and analyse the effect on the eigen-value of largest modulus

MATRIX A

60.140,	-16.70,	-18.35,	3.3200,	-48.60
154.80,	-37.56,	-62.80,	25.400,	-131.7
-174.4,	51.900,	65.340,	-15.10,	149.70
-185.7,	51.600,	73.300,	-23.46,	157.10
75.600,	-28.10,	-20.10,	-4.140,	-61.26

STARTING VECTOR

1.0000
.00000
.00000
.00000
.00000

Direct Iteration
Number of decimal places = 6

Iter.	Eigenvector	Alpha
1	-.323855, -.833602, .9391491, 1.000000, -.407108,	-185.700
100	-.317066, -.831955, .9815286, 1.000000, -.466142,	-8.71849
199	-.317083, -.831991, .9814344, 1.000000, -.465869,	-8.75768

Eigenvalue of largest modulus is -8.75754
Found in 229 iterations.
Corresponding eigenvector
(-.317082, -.831991, .9814348, 1.000000, -.465870)

****

MATRIX A

60.140,	-16.70,	-18.31,	3.3200,	-48.60
154.80,	-37.56,	-62.80,	25.400,	-131.7
-174.4,	51.900,	65.340,	-15.10,	149.70
-185.7,	51.600,	73.300,	-23.46,	157.10
75.600,	-28.10,	-20.10,	-4.140,	-61.26

STARTING VECTOR

1.0000
.00000
.00000
.00000
.00000

Direct Iteration
Number of decimal places = 6

Iter.	Eigenvector	Alpha
1	-.323855, -.833602, .9391491, 1.000000, -.407108,	-185.700
100	-.324314, -.830721, .9910856, 1.000000, -.480028,	-7.73738
199	-.324061, -.831516, .9891630, 1.000000, -.474605,	-8.33708
298	-.324082, -.831452, .9893181, 1.000000, -.475043,	-8.28528
397	-.324080, -.831457, .9893051, 1.000000, -.475006,	-8.28959

Eigenvalue of largest modulus is -8.28929
Found in 495 iterations.
Corresponding eigenvector
(-.324080, -.831457, .9893060, 1.000000, -.475009)

****