Information Retrieval
Homework 2

The tolerance for this assignment has been 1e-06.

1. What is the output for Matrix M? Give (print) the matrix.

	A	B	C	D	E	F
A	0	0	0	0	0	0
B	1	0	0.33333333	0.33333333	0.25	0
C	0	0.33333333	0	0.33333333	0.25	0
D	0	0.33333333	0.33333333	0	0.25	0
E	0	0.33333333	0.33333333	0.33333333	0	0
F	0	0	0	0	0.25	0

2. What is the output of Matrix A? After applying teleportation. Give (print) the matrix.

	A	B	C	D	E	F
A	0.025	0.025	0.025	0.025	0.025	0.025
B	0.875	0.025	0.30833333	0.30833333	0.2375	0.025
C	0.025	0.30833333	0.025	0.30833333	0.2375	0.025
D	0.025	0.30833333	0.30833333	0.025	0.2375	0.025
E	0.025	0.30833333	0.30833333	0.30833333	0.025	0.025
F	0.025	0.025	0.025	0.025	0.2375	0.025

3. What is the original rank vector (R)?

0.16666667
0.16666667
0.16666667
0.16666667
0.16666667
0.16666667

4. What is the Converged rank vector (R')? When you use Matrix A and M, give answer for both.

   Converged Rank Vector for M:

   0.0000E+00
   1.2588E-05
   1.2588E-05
   1.2588E-05
   1.3473E-05
   3.6054E-06

   Converged Rank Vector for A:

   0.025
   0.15902274
   0.1424643
   0.1424643
   0.150787
   0.05704245

5. How many iterations did it take to get the convergence? When you use Matrix A and M, give answer for both.

   Iterations M : 143
   Iterations A : 42