

```
>> M = [0 1 1 0 1 0; 1 0 1 1 1 1; 0 0 0 0 0 1; 1 1 1 0 1 1; 0 1 0 1 0 1; 1 1 1 1 1 0]
```

```
M =
```

```
Columns 1 through 4
```

0	1	1	0
1	0	1	1
0	0	0	0
1	1	1	0
0	1	0	1
1	1	1	1

```
Columns 5 through 6
```

1	0
1	1
0	1
1	1
0	1
1	0

```
>> [rows, cols] = size(M)
```

```
rows =
```

```
6
```

```
cols =
```

```
6
```

```
>> dim = rows
```

```
dim =
```

```
6
```

```
>> p = 0.85
```

```
p =
```

```
0.8500
```

```
>> colSums = sum(M, 1)
```

```
colSums =
```

```
Columns 1 through 4
```

```
3      4      4      3
```

```
Columns 5 through 6
```

```
4      4
```

```
>> numLinks = find(colSums ~= 0)
```

```
numLinks =
```

```
Columns 1 through 4
```

```
1      2      3      4
```

```
Columns 5 through 6
```

```
5      6
```

```
>> D = sparse(numLinks, numLinks, 1./ colSums(numLinks), rows, cols)
```

```
D =
```

```
(1,1)      0.3333  
(2,2)      0.2500  
(3,3)      0.2500  
(4,4)      0.3333  
(5,5)      0.2500  
(6,6)      0.2500
```

```
>> [zeroRows, zeroCols] = find(colSums == 0)
```

```
zeroRows =
```

```
1×0 empty double row vector
```

```
zeroCols =
```

```
1×0 empty double row vector
```

```
>> S = M * D
```

```
S =
```

```
Columns 1 through 2
```

```
0      0.2500  
0.3333      0  
0      0  
0.3333      0.2500  
0      0.2500
```

```
0.3333    0.2500
```

```
Columns 3 through 4
```

```
0.2500    0
0.2500    0.3333
0         0
0.2500    0
0         0.3333
0.2500    0.3333
```

```
Columns 5 through 6
```

```
0.2500    0
0.2500    0.2500
0         0.2500
0.2500    0.2500
0         0.2500
0.2500    0
```

```
>> S(:, zeroCols) = 1./ dim
```

```
S =
```

```
Columns 1 through 2
```

```
0         0.2500
0.3333    0
0         0
0.3333    0.2500
0         0.2500
0.3333    0.2500
```

```
Columns 3 through 4
```

```
0.2500    0
0.2500    0.3333
0         0
0.2500    0
0         0.3333
0.2500    0.3333
```

```
Columns 5 through 6
```

```
0.2500    0
0.2500    0.2500
0         0.2500
0.2500    0.2500
0         0.2500
0.2500    0
```

```
>> z = ((1 - p) * (colSums ~= 0) + (colSums == 0) ) / dim
```

```
z =
```

```
Columns 1 through 2
```

```
0.0250    0.0250
```

```
Columns 3 through 4
```

```
0.0250    0.0250
```

```
Columns 5 through 6
```

```
0.0250    0.0250
```

```
>> e = ones(cols, 1)
```

```
e =
```

```
1  
1  
1  
1  
1  
1  
1
```

```
>> A = p * S + e * z
```

```
A =
```

```
Columns 1 through 2
```

```
0.0250    0.2375  
0.3083    0.0250  
0.0250    0.0250  
0.3083    0.2375  
0.0250    0.2375  
0.3083    0.2375
```

```
Columns 3 through 4
```

```
0.2375    0.0250  
0.2375    0.3083  
0.0250    0.0250  
0.2375    0.0250  
0.0250    0.3083  
0.2375    0.3083
```

```
Columns 5 through 6
```

```
0.2375    0.0250
0.2375    0.2375
0.0250    0.2375
0.2375    0.2375
0.0250    0.2375
0.2375    0.0250
```

```
>> xPrev = zeros(cols, 1); xCurr = ones(cols, 1)
```

```
xCurr =
```

```
1
1
1
1
1
1
1
```

```
>> while norm(ldivide(dim, (xCurr - xPrev))) > 0.01    xPrev = xCurr; xCurr = A * xCurr;↵
end;
>> x = xCurr/ sum(xCurr)
```

```
x =
```

```
0.1223
0.2151
0.0706
0.2032
0.1737
0.2151
```

```
>>
```