```
>> 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 =

     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

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

rows =

     6


cols =

     6

>> dim = rows

dim =

     6

>> [V, D] = eig(M)

V =

  Columns 1 through 2

   0.2830 + 0.0000i  -0.6470 + 0.0000i
   0.4956 + 0.0000i  -0.0158 + 0.2181i
   0.1353 + 0.0000i   0.1385 - 0.1569i
   0.4956 + 0.0000i  -0.0158 + 0.2181i
   0.4059 + 0.0000i   0.4154 - 0.4707i
   0.4956 + 0.0000i  -0.0158 + 0.2181i

  Columns 3 through 4

  -0.6470 + 0.0000i   0.0000 + 0.0000i
  -0.0158 - 0.2181i  -0.0000 + 0.0000i
   0.1385 + 0.1569i  -0.7071 + 0.0000i
  -0.0158 - 0.2181i  -0.0000 + 0.0000i
   0.4154 + 0.4707i   0.7071 + 0.0000i
  -0.0158 - 0.2181i  -0.0000 + 0.0000i

  Columns 5 through 6
```

```
   0.0000 + 0.0000i   0.4908 + 0.0000i
  -0.7071 + 0.0000i  -0.1350 + 0.0000i
  -0.0000 + 0.0000i  -0.4908 + 0.0000i
  -0.0000 + 0.0000i  -0.4908 + 0.0000i
   0.7071 + 0.0000i   0.1350 + 0.0000i
   0.0000 + 0.0000i   0.4908 + 0.0000i


D =

  Columns 1 through 2

   3.6631 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i  -0.8315 + 0.6329i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i

  Columns 3 through 4

   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
  -0.8315 - 0.6329i   0.0000 + 0.0000i
   0.0000 + 0.0000i  -0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i

  Columns 5 through 6

   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i   0.0000 + 0.0000i
  -1.0000 + 0.0000i   0.0000 + 0.0000i
   0.0000 + 0.0000i  -1.0000 + 0.0000i

>> D = diag(D)

D =

   3.6631 + 0.0000i
  -0.8315 + 0.6329i
  -0.8315 - 0.6329i
  -0.0000 + 0.0000i
  -1.0000 + 0.0000i
  -1.0000 + 0.0000i

>> if D(1) == real(D(1)) x = V(:, 1); else x = zeros(cols, 1); end;
>> x = x / sum(x);
```

```
>> x

x =

    0.1225
    0.2145
    0.0585
    0.2145
    0.1756
    0.2145

>>
```