```
>> P=randproj(4,2)
rank(P)=k
P=P^2
P=P^*
It worked!
P =
    0.3402
             -0.0028
                         0.4087
                                    0.2396
   -0.0028
              0.5277
                         0.2518
                                  -0.4311
                                    0.0803
    0.4087
              0.2518
                         0.6145
    0.2396
             -0.4311
                         0.0803
                                    0.5176
>> P=randproj(4,4)
rank(P)=k
P=P^2
P=P^*
It worked!
P =
    1.0000
              0.0000
                         0.0000
                                  -0.0000
    0.0000
              1.0000
                         0.0000
                                  -0.0000
    0.0000
              0.0000
                         1.0000
                                  -0.0000
   -0.0000
             -0.0000
                        -0.0000
                                   1.0000
>> P=randproj(3,1)
rank(P)=k
P=P^2
P=P^*
It worked!
P =
    0.7934
              0.3918
                         0.1022
    0.3918
              0.1935
                         0.0505
    0.1022
              0.0505
                         0.0132
```

>>