
```

function y=RandomPermutation(A)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% return random permutation of matrix A
% unlike randperm(n) that give permutation of integer 1:n only,
% RandomPermutation rearrange member of matrix A randomly
% This function is useful for MonteCarlo Simulation, Bootstrap sampling, game, etc
%
% Copyright Kardi Teknomo(c) 2005
% (http://people.revoledu.com/kardi/)
%
%
% example:
%   A=magic(3)
%   RandomPermutation(A)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
if nargin<1,
    A = [ 2, 1, 5, 3];

end
[r,c]=size(A);
b=reshape(A,r*c,1);           % convert to column vector
x=randperm(r*c);              % make integer permutation of similar array as key
w=[b,x'];                     % combine matrix and key
d=sortrows(w,2);               % sort according to key
y=reshape(d(:,1),r,c);         % return back the matrix

    ans =
           2           5           3           1

```

Published with MATLAB® R2014a