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```
%2.8.1
clear all
clc

for n=2:16
    fprintf('n=%d, condition number is %.4e and norm is %f\n',n,cond(hilb(n)), norm(hilb(n),2))
end

n=2, condition number is 1.9281e+01 and norm is 1.267592
n=3, condition number is 5.2406e+02 and norm is 1.408319
n=4, condition number is 1.5514e+04 and norm is 1.500214
n=5, condition number is 4.7661e+05 and norm is 1.567051
n=6, condition number is 1.4951e+07 and norm is 1.618900
n=7, condition number is 4.7537e+08 and norm is 1.660885
n=8, condition number is 1.5258e+10 and norm is 1.695939
n=9, condition number is 4.9315e+11 and norm is 1.725883
n=10, condition number is 1.6025e+13 and norm is 1.751920
n=11, condition number is 5.2232e+14 and norm is 1.774883
n=12, condition number is 1.7086e+16 and norm is 1.795372
n=13, condition number is 6.8773e+17 and norm is 1.813830
n=14, condition number is 4.2669e+17 and norm is 1.830595
n=15, condition number is 4.5413e+17 and norm is 1.845928
n=16, condition number is 3.9829e+17 and norm is 1.860036
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