```
n = 100;
A = diag(-ones(n-1,1),1) + diag(-ones(n-1,1),-1) + 2 *
 diag(ones(n,1));
I = diag(ones(n,1));

A_ = A/2;

P = 0;

b_list = [];

for k = 0:15
    P = P + (I - A_)^k;

    b = cond(P*A);
    b_list = [b_list;b];
end

a = cond(A);
disp('Konditionszahl von A:')
disp(a)

disp('Konditionszahlen von P*A:')
disp(b_list)
```

```
Konditionszahl von A:
   4.1336e+03

Konditionszahlen von P*A:
   1.0e+03 *

    4.1336
    1.0337
    1.3779
    0.5172
    0.8267
    0.3450
    0.5905
    0.2589
    0.4593
    0.2072
    0.3758
    0.1727
    0.3180
    0.1481
    0.2756
    0.1297
```

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