```
# -*- coding: utf-8 -*-
"""
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Cap 6

"""

import matplotlib.pyplot as plt
import networkx as nx
import numpy as np
from networkx.algorithms import approximation as app

n=1000

k=10

L=[0]
C=[0]
ps = np.logspace(-4, 0, 9)

for p in (ps):
    ws=nx.watts_strogatz_graph(n,k,p)
    c=app.average_clustering(ws, trials=1000)
    l=round(nx.average_shortest_path_length(ws),3)
    L.append(l)
    C.append(c)
print()

print('il coefficiente di aggregazione è C = ', c)



print()
print('il coefficiente di lunghezza media più breve è L = ', l)
```