```matlab
close all; clear all; clc;
r = [1 2 3 4 5 6 7 8 9 10];
i = [9.97 5.09 3.27 2.53 1.99 1.7 1.4 1.27 1.11 .98];
I = log(i);R = log(r);
A = [length(r) sum(R);sum(R) sum(R.^2)];
Y = [sum(I); sum(I.*R)];
x = A\Y;
Vs = exp(x(1))
n = -x(2)
plot(r,i,'b');
hold on;
yi = Vs./(R.^n);
yi = x(1)+x(2).*R;
plot(r,exp(yi),'r');
```