```
close all; clear all; clc;

r = [.5 1 1.5 2 2.5];

i = [1.166 1.475 2.0967 3.17 4.98];

I = log(i);R = log(r);

A = [length(r) sum(R) sum(R.^2) sum(R.^3) sum(R.^4);sum(R) sum(R.^2) sum(R.^3) sum(R.^4) sum(R.^5);sum(R.^2) sum(R.^3) sum(R.^4) sum(R.^5) sum(R.^6);sum(R.^3) sum(R.^4) sum(R.^5) sum(R.^6);sum(R.^6) sum(R.^7);sum(R.^4) sum(R.^6);sum(R.^6) sum(R.^7);sum(R.^8)];

Y = [sum(I);sum(I.*R);sum(I.*(R.^2)); sum(I.*(R.^3));sum(I.*(R.^4))];

x = A\Y;

yi = x(1)+x(2).*R +x(3).*(R.^2)+x(4).*(R.^3)+x(5).*(R.^4);

plot(r,i,'o');

hold on;

plot(r,exp(yi),'r');
```