```
%ME 360 HW 8 PROBLEM 1

clear
clc

%Data for force, F, gathered in class, in units of [lbf]
F = [1.62,6.62,11.62,16.62,21.62,26.62,31.62];

%Data for deflection, y, gathered in class, units [in]
y = [0,0.29,0.80,1.27,1.77,2.25,2.74];

%polyfit function of data, for n = 1 degree polynomial
P = polyfit(y,F,1)


Y = polyval(P,y);

figure(1)
hold
plot(y,Y)
scatter(y,F)
xlabel('Spring Deflection y [in]')
ylabel('Deadweight Load, F, [lbf]')
```