```
%differentiation/intregation.. local and global maxima_minima
%problem 1 & 2
close all; clear all; clc;
f=inline('5*cos(10.*x)+x.^3-2.*x.^2-6.*x+10');
h = .001;l = 0:h:4;
for i=1:length(l)-1
    y(i)=(f(l(i)+h)-f(l(i)))./h;
end
maxmin = f(l(find(abs(y)<.11)))
format long g
global_maxima = max(maxmin)
global_minima = min(maxmin)
subplot(2,1,1)
plot(l,f(l),'b');
subplot(2,1,2)
plot(l(1:length(l)-1),y,'b')
```