```
clear


%Graph 1
subplot(2,2,1)
[x,y] = meshgrid([-2:.1:2]);
z = (x.^2+y.^2);
mesh(x,y,z);
surf(x,y,z);


%Graph 2
subplot(2,2,2)
hold on;
axis([-5 5 -4 4])
grid on;
plot([0 0],[-pi,pi]);
plot([-pi pi],[0 0]);
for i=2:2:10
syms x;
f=sin(x);
y=taylor(f,i);
xd=-pi:pi/100:pi;
yd=subs(y,xd);
plot(xd,yd,'r');
end
hold off;

%Graph 3
subplot(2,2,3)
hold on;
axis([-5 5 -2 2])
grid on;
plot([0 0],[-2,2],'r');
plot([-pi pi],[0 0],'r');
x=-pi:pi/100:pi;
for k=1:5
  plot(x,sin(k*x),'b')
end
hold off;

%Graph 4
subplot(2,2,4)
[x,y] = meshgrid([-4:.1:4]);
z = -(x.^2+2*y.^2);
mesh(x,y,z)
surf(x,y,z)
```