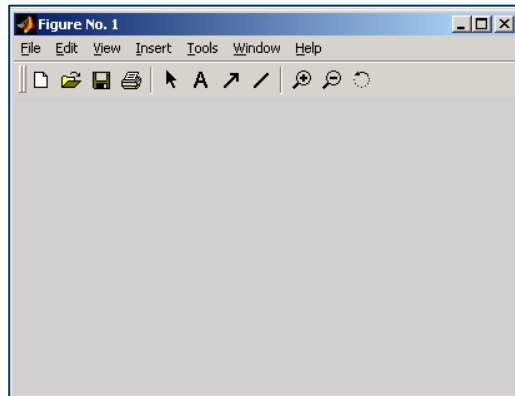
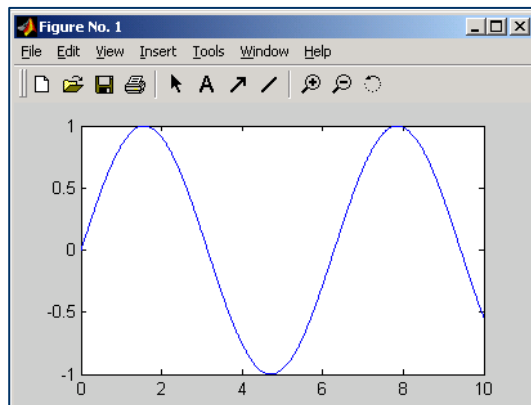


Gráficos

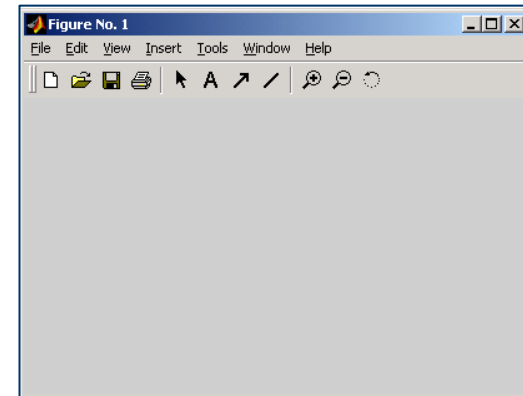
```
>> figure(1)
```



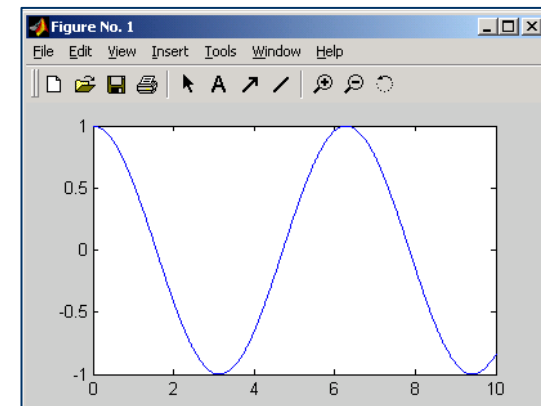
```
>> t=0:0.01:10;  
>> y=sin(t);  
>> plot(t,y)
```



```
>> figure(2)
```

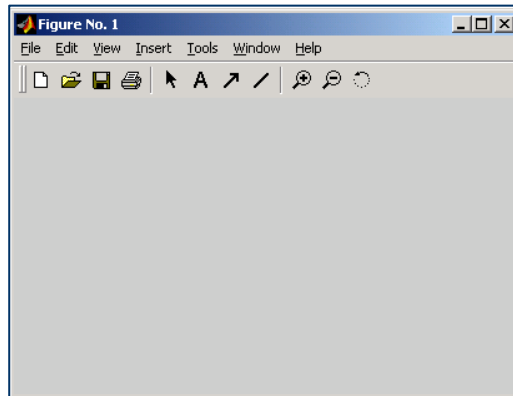


```
>> z=cos(t);  
>> plot(t,z)
```

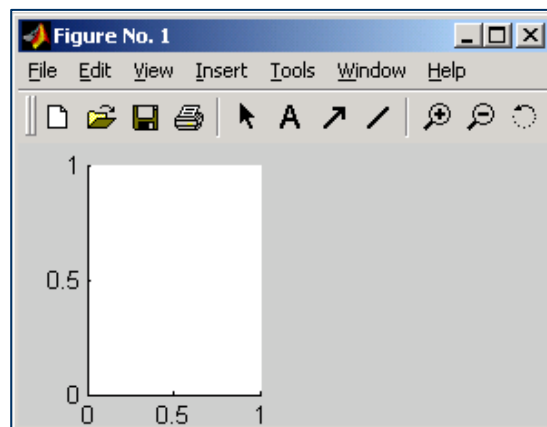


Gráficos

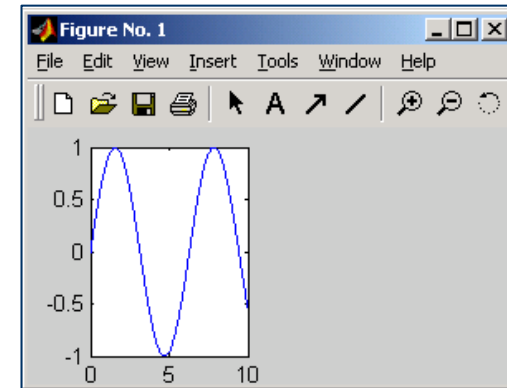
```
>> figure(3)
```



```
>> subplot(1,2,1)
```

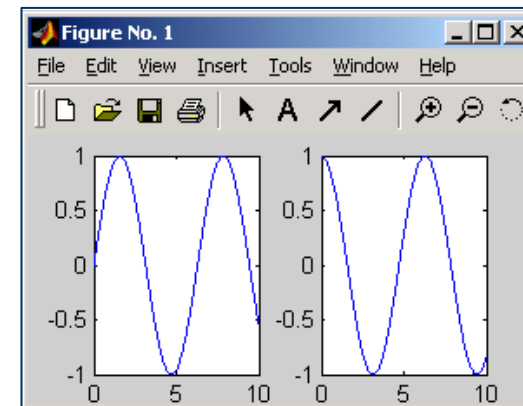


```
>> plot(t,y)
```



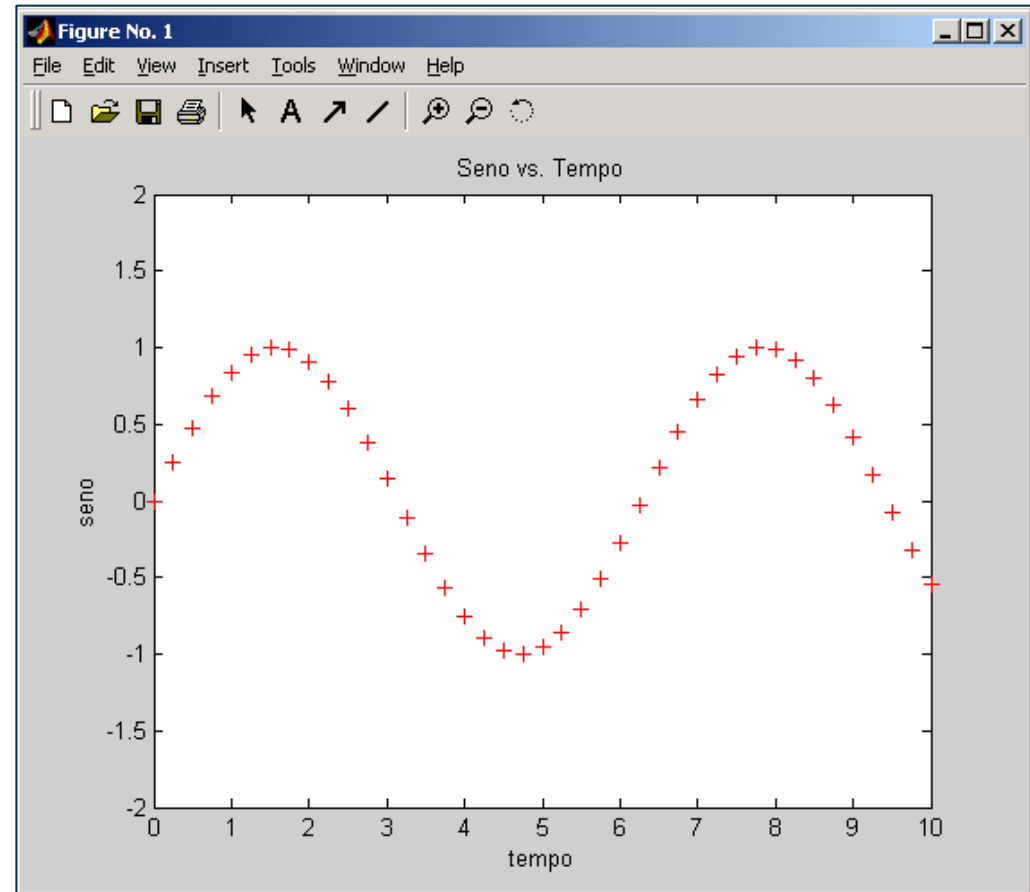
```
>> subplot(1,2,2)
```

```
>> plot(t,z)
```



Gráficos

```
>> t=0:0.25:10;  
>> y=sin(t);  
>> plot(t,y,'r+')  
>> xlabel('tempo')  
>> ylabel('seno')  
>> title('Seno vs. Tempo')  
>> Axis([0 10 -2 2])
```

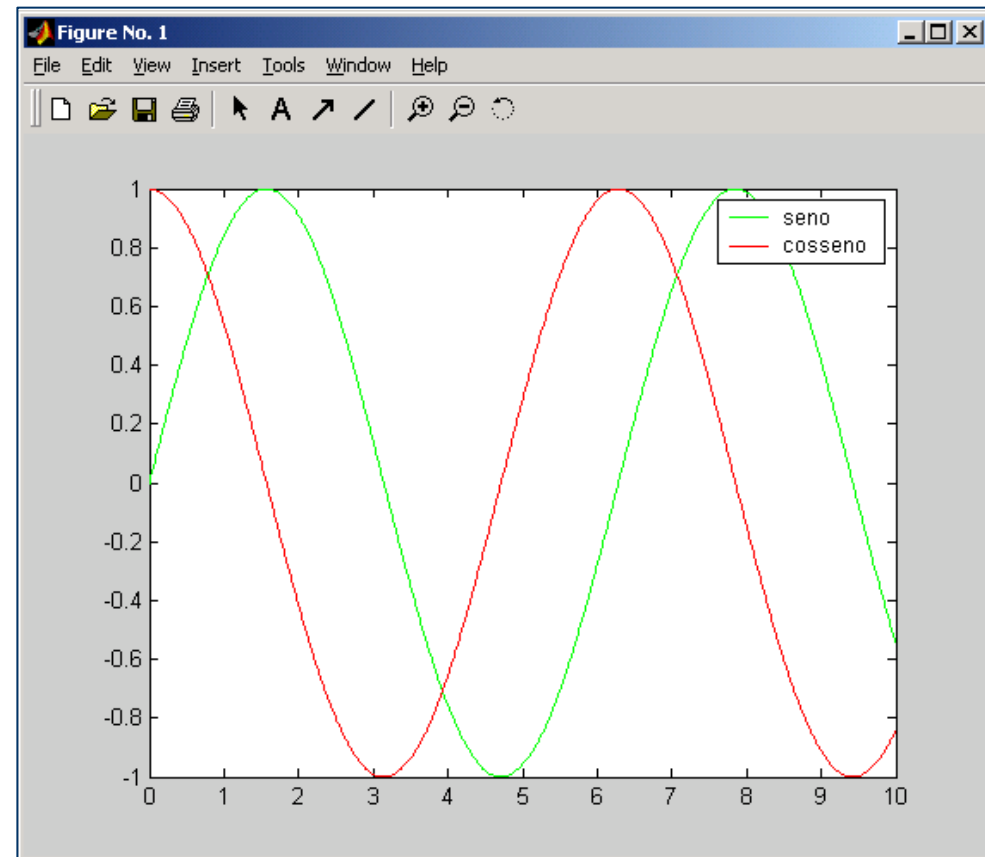


Gráficos

```
>> t=0:0.01:10;  
>> y=sin(t);  
>> z=cos(t);  
>> plot(t,y,'g-',t,z,'r-')  
>> legend('seno','cosseno')
```

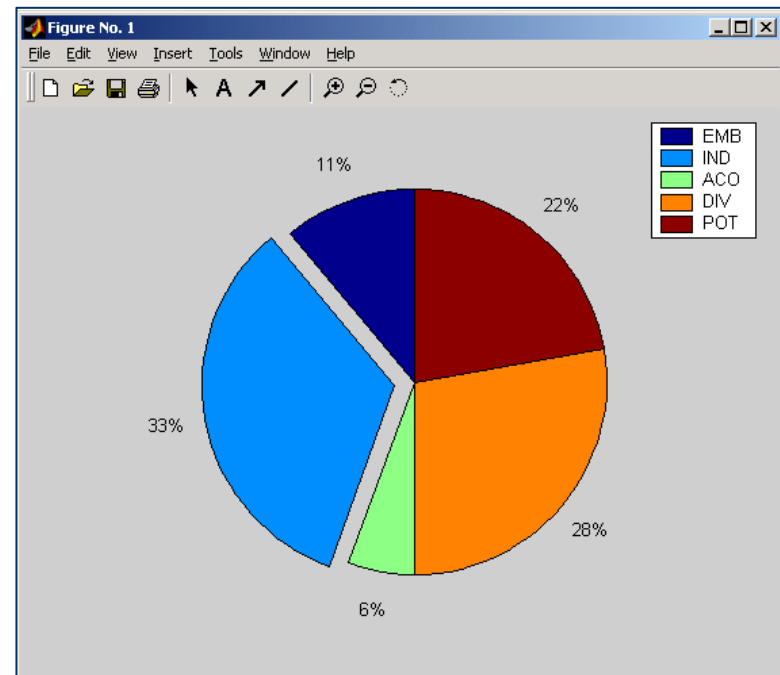
Ou...

```
>> t=0:0.01:10;  
>> y=sin(t);  
>> z=cos(t);  
>> plot(t,y,'g-')  
>> hold on  
>> plot(t,z,'r-')  
>> legend('seno','cosseno')
```



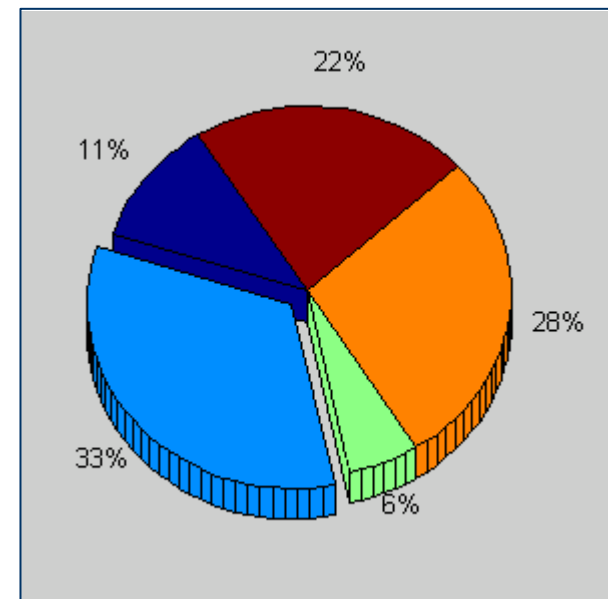
Gráficos - Tortas

```
>> x = [1 3 0.5 2.5 2];  
>> explode = [0 1 0 0 0];  
>> pie(x,explode)  
>> colormap jet  
>> legend('EMB','IND','ACO','DIV','POT')
```



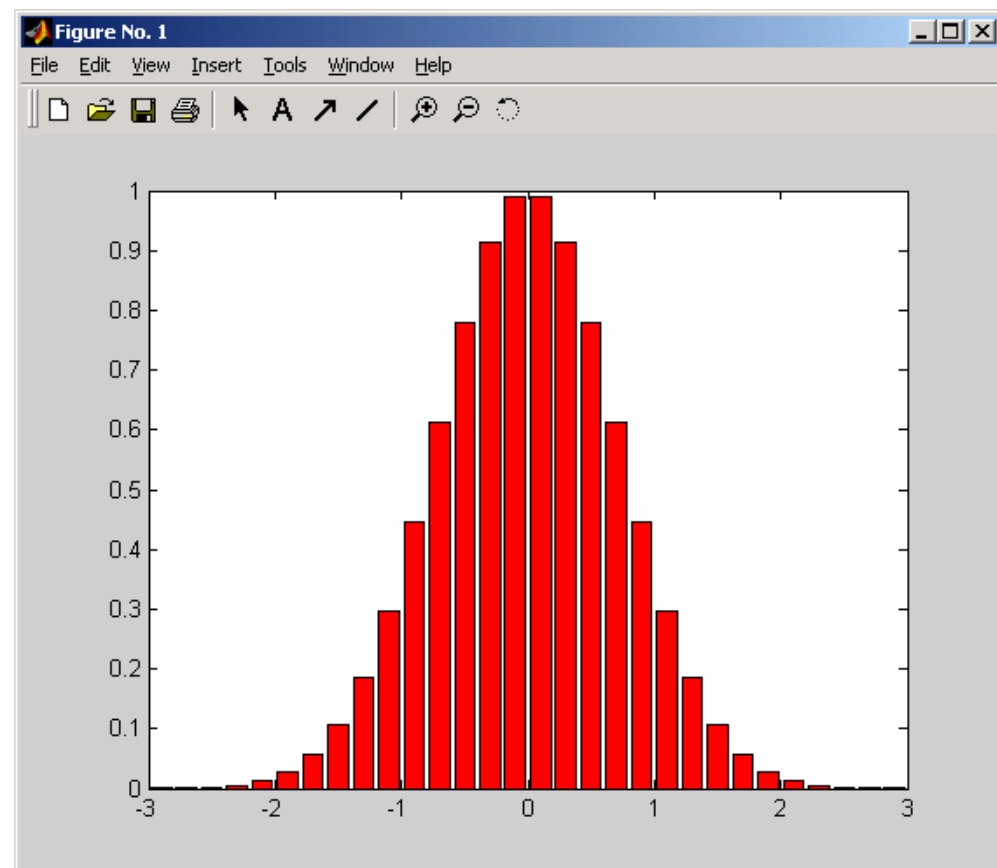
Gráficos - Tortas

```
>> x = [1 3 0.5 2.5 2];  
>> explode = [0 1 0 0 0];  
>> pie3(x,explode)  
>> colormap jet  
>> legend('EMB','IND','ACO','DIV','POT')
```

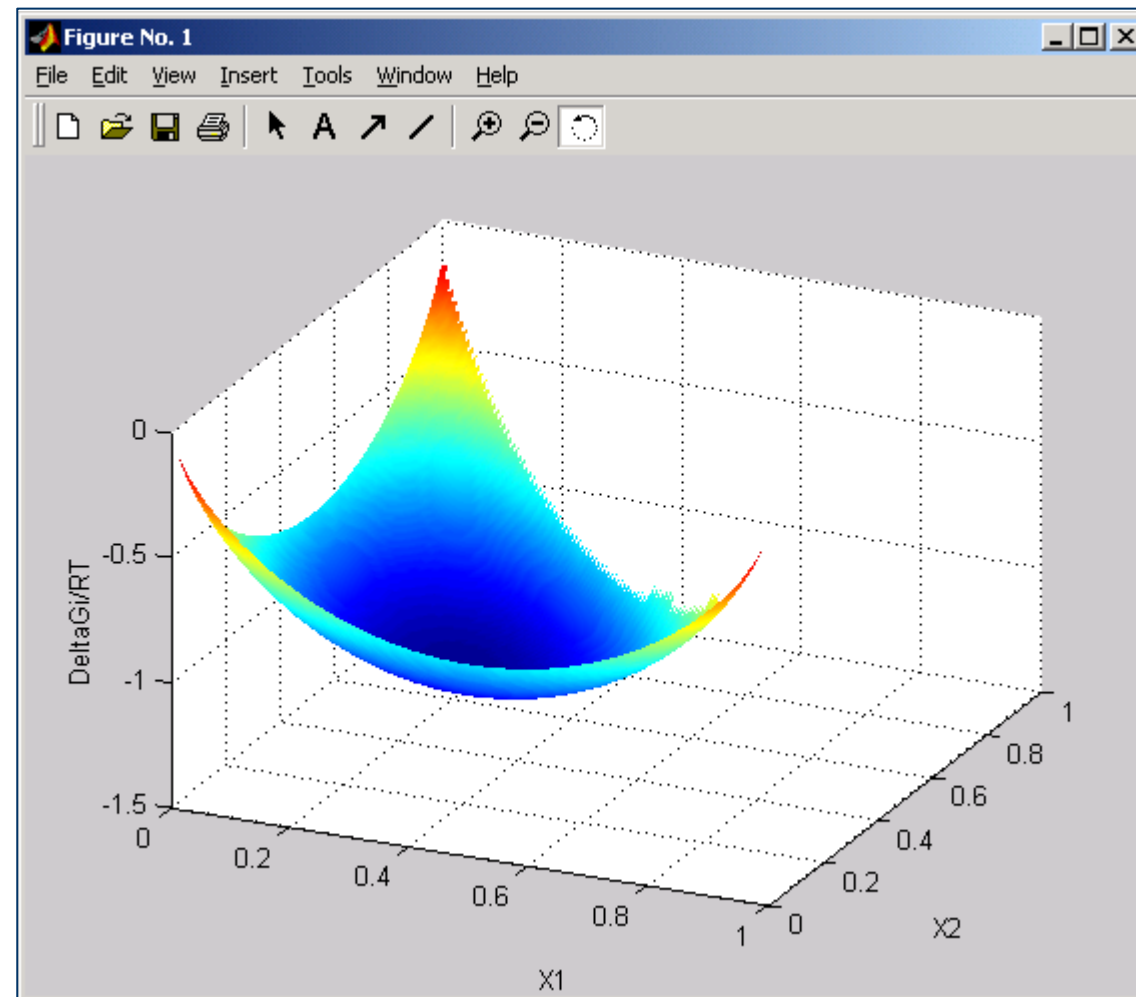


Gráficos - Barras

```
>> x = -2.9:0.2:2.9;  
>> bar(x,exp(-x.*x))  
>> colormap hsv
```



Gráficos - Superfície



Gráficos - Superfície

```
%Malha triangular da base
%malha da base
xx=0:0.01:1;
yy=0:0.01:1;
[X,Y]=meshgrid(xx,yy);
Z=1-X-Y;
%aplica a restrição para usar só a base do triangulo
%onde existe consistência física (o que nao tem vira "Not a Number")
iz=find(Z<0);Z(iz)=nan;
```

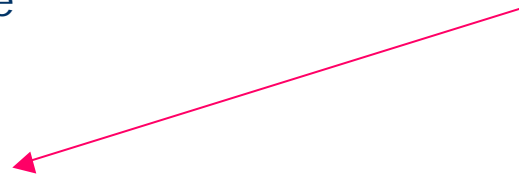
Gráficos - Superfície

```
%Malha triangular da base  
%malha da base
```

```
xx=0:0.01:1;  
yy=0:0.01:1;  
[X,Y]=meshgrid(xx,yy);  
Z=1-X-Y;
```

```
%aplica a restrição para usar só a base do triangulo  
%onde existe consistência física (o que não tem vira "Not a Number")  
iz=find(Z<0);Z(iz)=nan;
```

Composição
(3 componentes)



Gráficos - Superfície

Alguns Z são negativos! Não pode!

```
%Malha triangular da base
```

```
%malha da base
```

```
xx=0:0.01:1;
```

```
yy=0:0.01:1;
```

```
[X,Y]=meshgrid(xx,yy);
```

```
Z=1-X-Y;
```

```
%aplica a restrição para usar só a base do triangulo
```

```
%onde existe consistência física (o que não tem vira "Not a Number")
```

```
iz=find(Z<0);Z(iz)=nan;
```

```
v1=zeros(size(X));  
  
for i=1:length(X)^2,  
    x1=X(i);  
    x2=Y(i);  
    x3=Z(i);  
    %calculo do v1 (vertical)  
    vv1=(x1*log(x1))+(x2*log(x2))+(x3*log(x3));  
    v1(i)=vv1;  
end
```

```
%gráfico da superfície  
colormap jet  
figure(1);surf(X,Y,v1); rotate3d on; shading interp;  
xlabel('X1');ylabel('X2');zlabel('DeltaGi/RT');
```

```
v1=zeros(size(X));
```

```
for i=1:length(X)^2,
```

```
    x1=X(i);
```

```
    x2=Y(i);
```

```
    x3=Z(i);
```

```
    %calcula do v1 (vertical)
```

```
    vv1=(x1*log(x1))+(x2*log(x2))+(x3*log(x3));
```

```
    v1(i)=vv1;
```

```
end
```

Eixo Vertical



```
%grafico da superfice
```

```
colormap jet
```

```
figure(1);surf(X,Y,v1); rotate3d on; shading interp;
```

```
xlabel('X1');ylabel('X2');zlabel('DeltaGi/RT');
```

```
v1=zeros(size(X));  
  
for i=1:length(X)^2,  
    x1=X(i);  
    x2=Y(i);  
    x3=Z(i);  
    %calculo do v1 (vertical)  
    vv1=(x1*log(x1))+(x2*log(x2))+(x3*log(x3));  
    v1(i)=vv1;  
end
```

Desenha a
superfície

```
%grafico da superfice  
colormap jet  
figure(1); surf(X,Y,v1); rotate3d on; shading interp;  
xlabel('X1'); ylabel('X2'); zlabel('DeltaGi/RT');
```

```
v1=zeros(size(X));  
  
for i=1:length(X)^2,  
    x1=X(i);  
    x2=Y(i);  
    x3=Z(i);  
    %calculo do v1 (vertical)  
    vv1=(x1*log(x1))+(x2*log(x2))+(x3*log(x3));  
    v1(i)=vv1;  
end
```

Aciona a
rotação da figura

```
%grafico da superficie  
colormap jet  
figure(1);surf(X,Y,v1); rotate3d on; shading interp;  
xlabel('X1');ylabel('X2');zlabel('DeltaGi/RT');
```

```
v1=zeros(size(X));  
  
for i=1:length(X)^2,  
    x1=X(i);  
    x2=Y(i);  
    x3=Z(i);  
    %calculo do v1 (vertical)  
    vv1=(x1*log(x1))+(x2*log(x2))+(x3*log(x3));  
    v1(i)=vv1;  
end
```

```
%grafico da superfice  
colormap jet  
figure(1);surf(X,Y,v1); rotate3d on; shading interp;  
xlabel('X1');ylabel('X2');zlabel('DeltaGi/RT');
```

Superfície
homogenia



Gráficos - Superfície

