```
clc;clear;
dx=.01; % incrementos
x=-2*pi:dx:2*pi  %rango x
```

```
x = 1×1257
   -6.2832   -6.2732   -6.2632   -6.2532   -6.2432   -6.2332   -6.2232   -6.2132 ···
```

Funciones y Derivadas

```
y1=sinc(x/2+pi/3)
```

```
y1 = 1×1257
    0.0444    0.0422    0.0400    0.0378    0.0355    0.0333    0.0310    0.0287 ···
```

```
y1d=diff(y1)%resta el primer valor de y1 con respecto al segunda  valor de y1
```

```
y1d = 1×1256
   -0.0022   -0.0022   -0.0022   -0.0022   -0.0023   -0.0023   -0.0023   -0.0023 ···
```

```
dy1=y1d/dx
```

```
dy1 = 1×1256
   -0.2188   -0.2209   -0.2229   -0.2249   -0.2269   -0.2288   -0.2307   -0.2325 ···
```

```
sd1=sign(dy1)%indica el signo de los valores de dy1
```

```
sd1 = 1×1256
    -1    -1    -1    -1    -1    -1    -1    -1    -1    -1    -1    -1    -1 ···
```

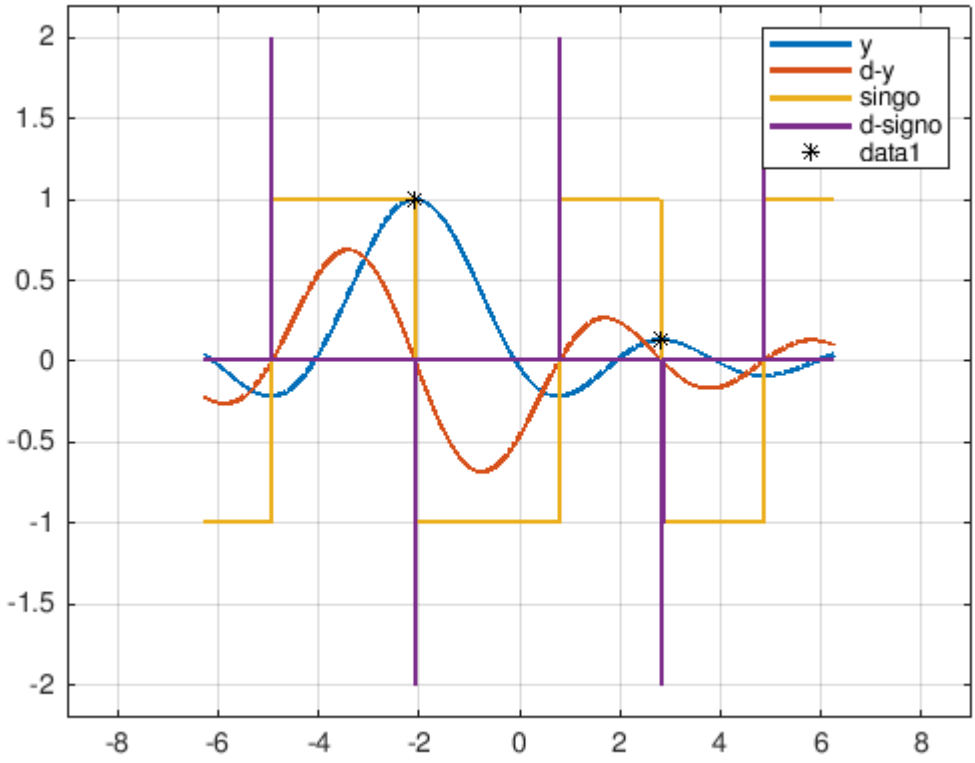
```
dsd1=diff(sd1)
```

```
dsd1 = 1×1255
     0     0     0     0     0     0     0     0     0     0     0     0     0 ···
```

```
plot(x,y1,'LineWidth',2);  hold  on;
plot(x(2:end),dy1,'LineWidth',2);
plot(x(2:end),sd1,'LineWidth',2);
plot(x(2:end-1),dsd1,'LineWidth',2);
grid; axis([ -9,9,-2.2,2.2]);
legend('y','d-y','singo','d-signo')
i_max=find(dsd1==-2) %posicion en dsd1 es igual a -2, punto diferente
```

```
i_max = 1×2
   419   911
```

```
plot(x(i_max+1),y1(i_max+1),'k*')
```




```
%YEIMY PAOLA AGUIRRE ESCOBAR
%20161167046
```