

```
*****
Ejemplos Bisección
*****
```

```
>> f=inline ('x+exp(x)')
```

```
f =
```

```
    Inline function:
    f(x) = x+exp(x)
```

```
>> f(-1)
```

```
ans =
```

```
    -0.6321
```

```
>> f(0)
```

```
ans =
```

```
    1
```

```
>> biseccion(f,-1,0,0.001)
```

```
Método de la bisección
```

```
n=1
```

```
c=-0.5
```

```
f(c)=0.10653
```

```
n=2
```

```
c=-0.75
```

```
f(c)=-0.27763
```

```
n=3
```

```
c=-0.625
```

```
f(c)=-0.089739
```

```
n=4
```

```
c=-0.5625
```

```
f(c)=0.0072828
```

```
n=5
```

```
c=-0.59375
```

```
f(c)=-0.041498
```

```
n=6
```

```
c=-0.57813
```

```
f(c)=-0.017176
```

```
n=7
```

```
c=-0.57031
```

```
f(c)=-0.0049638
```

```
n=8
```

```
c=-0.56641
```

```
f(c)=0.0011552
```

```
n=9
```

```
c=-0.56836
```

```
f(c)=-0.0019054
```

```
x =
```

```
    -0.5684
```

```
ans =    -0.5684
```

```
*****
Ejemplo Punto Fijo
*****
```

1.

%Definición de la function a iterar

```
>> g= inline ('5/sqrt(x)')
```

g =

```
Inline function:
g(x) = 5/sqrt(x)
```

```
>> pfijo_error(g,2,2.5,3.5,0.005,0.7)
```

n =

20

p =

Columns 1 through 7

2.0000000000000000	3.535533905932737	2.659147948472494
3.066187817586520	2.855424144460250	2.958929996770189
2.906716387015645		

Columns 8 through 14

2.932706993486403	2.919682769802622	2.926187635433159
2.922933393080258	2.924560061620575	2.923746614222860
2.924153309635894		

Columns 15 through 20

2.923949954858413	2.924051630479351	2.924000792226939
2.924026211242659	2.924013501707177	2.924019856468012

ans =

20

```

%Definición de la function a iterar

>> g= inline ('x- (x^3-x-1)/(3*x^2-1)')

g =

    Inline function:
    g(x) = x- (x^3-x-1)/(3*x^2-1)


>> pfijo_error(g,1.3,1.25,1.5,0.001,0.59)

n =

    14


p =

Columns 1 through 7

1.3000000000000000    1.325307125307125    1.324718280461173
1.324717957244843    1.324717957244746    1.324717957244746
1.324717957244746

Columns 8 through 14

1.324717957244746    1.324717957244746    1.324717957244746
1.324717957244746    1.324717957244746    1.324717957244746
1.324717957244746

ans =

    14

```