METODO DE LA SECANTE

```matlab
clc, clear;
format long g;
syms x;
```

INGRESAR EL X DE DATO INFERIOR:

```matlab
Lim_inf = 0;
```

INGRESAR EL X DE DATO SUPERIOR:

```matlab
Lim_sup = 5;
```

INGRESAR LA TOLERACIA:

```matlab
Tol     = 0.00001;
```

INGRESAR EL NUMERO DE ITERACIONES:

```matlab
Num_it  = 20;
```

INGRESAR LA ECUACÍON F(x):

```matlab
f_x= -1.654*0.44+9.36*log10(x+1)-0.2+ ( (log10(1.7/(4.2-1.5)))/ (0.4+ 1094/(x+1)^5.19) )+2.32*]
%f_x= cos(x)-x;
```
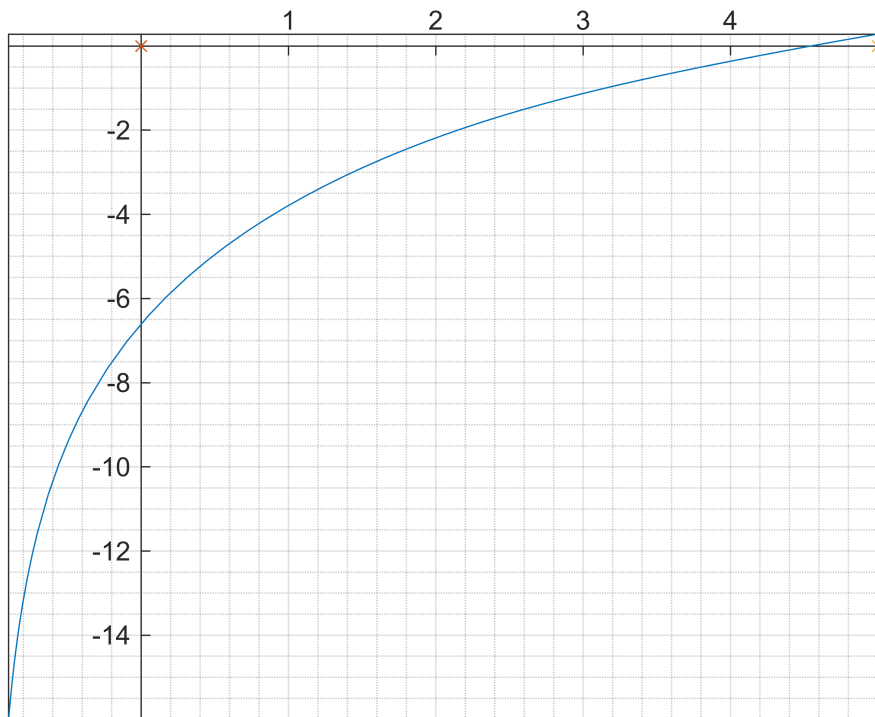
```
================================================================================
==================================

================================================================================
==================================
```

```matlab
fplot(f_x);
hold on;
plot(Lim_inf,0,'x');
plot(Lim_sup,0,'x');
hold off;
grid on;
grid minor;
ax = gca;
ax.XAxisLocation = 'origin';
ax.YAxisLocation = 'origin';
```

```
f= @(x) eval(f_x);
i=1;
q_0=f(Lim_inf)
```

```
q_0 =
          -6.6000356526584
```

```
q_1=f(Lim_sup)
```

```
q_1 =
          0.281890273459963
```

```
while(i<=Num_it)

    p=Lim_sup-(q_1*(Lim_sup-Lim_inf)/(q_1-q_0));

    if(abs(p-Lim_sup)<Tol )
        disp(p);
        break;
    else
        Lim_inf=Lim_sup;
        q_0=q_1;
        Lim_sup=p;
        q_1=f(p);

    end
    i=i+1;
```

```
end
```

4.5477461821177