

```
def func(x):  
    f=pow(x,6)-x-1  
    return f  
  
TOL=1.e-7  
  
x1,x2=2,1  
err=1  
loop=-1  
while (err>TOL):  
    loop+=1  
    if(loop > 100): break  
    f1=func(x1)  
    f2=func(x2)  
    x3=x2-f2*(x2-x1)/(f2-f1)  
    err=abs(x3-x2)  
    print ("loop={:2d}   x3={:.5f}  f3={:.5f}   err={:.5e}".format(loop,x3,func(f3),err))  
    x1=x2  
    x2=x3
```