

```
function [x]=mybisc(a,b,tol,max_it)
% [x]=BISC(a,b, tol) is a Matlab code bisection method for finding a
% root of f(x)=0
%
% Input: a,b,tol,max_it
% Output: x --- one root
%

iter=0;
while iter<max_it
    t=(b-a)/2;
    c = a+ t;
    if (t<tol)
        break;
    end
    sc=sign(f(c));

    if sc==0
        break;
    end

    if sc * sign(f(b))> 0
        b = c;
    else
        a = c;
    end
    iter=iter+1;
    fprintf(' The approximate solution at iteration %d is %g, and the error=%g\n', iter, c, t);
end

x=c;
fprintf(' The solution is %g,f(c)=%g,err=%g\n', c, f(c), t);
return
%
% End of BISC

function result=f(x)
result= x^3-2*x-5;
return
```