**Matlab code**

a=2; % The lower boundary of interval where the f(a) and f(b) are of opposite signs

b=3;% The upper boundary of interval where the f(a) and f(b) are of opposite signs

x=linspace(2,3); % interval of the x

f=@(x) x.^2-5;

error=0.01; % error criteria to stop the iteration

m=(a+b)/2; % calculate m for the beginning

if ((abs(b-a))<error)

fprintf('%f',m);

else

while((abs(b-a))>error)

if (f(m)==0)

fprintf('%f \n',m);

elseif (f(m)<0)

a=m;

m=(a+b)/2;

fprintf('%f \n',m);

else

b=m;

m=(a+b)/2;

fprintf('%f \n',m);

end

end

fprintf('%f \n',m);

end

xlim([-5,5])

plot(f(x)); % plot the graph of f(x)