f = @(x)x^3-2;

>> ab = [1,2];

>> tol = 1e-15;

>> bisect(f,ab,tol,0.25)

ans =

1.259921049894873 1.259921049894873

>> tic, bisect(f,ab,tol,0.25), toc

ans =

1.259921049894873 1.259921049894873

Elapsed time is 0.005164 seconds.

>> tic, bisect(f,ab,tol,0.5), toc

ans =

1.259921049894873 1.259921049894873

Elapsed time is 0.003360 seconds.

tic, bisect(f,ab,tol,0.75), toc

ans =

1.259921049894873 1.259921049894874

Elapsed time is 0.003883 seconds.

tic, bisect(f,ab,tol,Inf), toc

ans =

1.259921049894873 1.259921049894874

Elapsed time is 0.004861 seconds.