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%Title:- To calculate root of given equation by using false position method %
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%Date:- 04 Dec
%_____
%_____Three critical statement_____
close all;
clear variables;
clc;
%_____
%_____function declaration_____
%_____
func=input('Enter the function f(x)= ');
f=inline(func);
disp(f);
E=0.0005;
%_____
%__user input section_____
%_____
a=input('Enter the starting point of root interval a= ');
b=input('Enter the ending point of root interval b= ');
fa=f(a);
fb=f(b);
while(fa*fb>0)
a=input('Enter the starting point of root interval a= ');
b=input('Enter the ending point of root interval b= ');
fa=f(a);
fb=f(b);
end;
msg=[a,fa;b,fb];
disp(msg);
%_____
%__calculation section_____
%_____
x=(a*fb-b*fa)/(fb-fa);
fx=f(x);
out=[a fa b fb x fx];
disp('_____ ');
disp(' a f(a) b f(b) x f(x) ');
disp('_____ ');
disp(out);
temp=0;
while(abs(x-temp)>E)
temp=x;
if(fa*fx>0)
a=x;
fa=fx;

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else
b=x;
fb=fx;
end;
x=(a*fb-b*fa)/(fb-fa);
fx=f(x);
out=[a fa b fb x fx];
disp(out);
end;
%_____
%__output section__
%_____
msg=strcat('the root lies at x=' , num2str(x), ' with f(x)=' ,num2str(fx));
disp('_____');
disp(msg);

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Error using ==> input

Cannot call 'input' from evalc.