Matlab Code for Euler Method

function E=euler(f,a,b,ya,M)

```
%Input   - f is the function entered as a string 'f'
%        - a and b are the left and right endpoints
%        - ya is the initial condition y(a)
%        - M is the number of steps
%Output  - E=[T' Y'] where T is the vector of abscissas and
%          Y is the vector of ordinates


h=(b-a)/M;
T=zeros(1,M+1);
Y=zeros(1,M+1);
T=a:h:b;
Y(1)=ya;

for j=1:M
   Y(j+1)=Y(j)+h*feval(f,T(j),Y(j));
end

E=[T' Y'];

YY=euler(f,a,b,ya,M)



plot(yy(:,1), yy(:,2))
```