```
function [ r ] = roots_bisec( f,x,y,xt )
for i=1:1000
  if y+.1<x
    xu(i)=y+.1;
    x1(i)=y;
    y=y+.1;
  else
     xu(i)=x;
     x1(i)=y;
   break
  end
end
p=0;
for i=1:length(xu)
    xm=xu(i)-((xu(i)-x1(i))/(f(xu(i))-f(x1(i))))*f(xu(i));
    if f(xu(i))*f(x1(i))<0
    p=p+1;
    while (abs(f(xm))>xt)
    xm=xu(i)-((xu(i)-x1(i))/(f(xu(i))-f(x1(i))))*f(xu(i));
       if f(x1(i))*f(xm)>0
         x1(i)=xm;
       else
         xu(i)=xm;
        end
     end
    r(p)=xm;
    p=p+1;
   end
end
end
```