

1)

a) approx root is 1

b) error since there is no sign change from  $f(a)$  to  $f(b)$ .

c) approx root is 1

Not possible to find  $x=0$  because it does not cross the  $x$  axis.

2)

a)  $x=1$  yes correct root in interval  
yes correct accuracy.

b) Not Successful because even root.

c)  $a=0$   $b=.1$ yes root  $= 0$  $a=.5$   $b=\frac{3\pi}{4}$ 

no sign change

So unsuccessful

3)

a) It breaks because perturbations make large  $\Delta$  in calculation.

if it overshoots next guess is very large