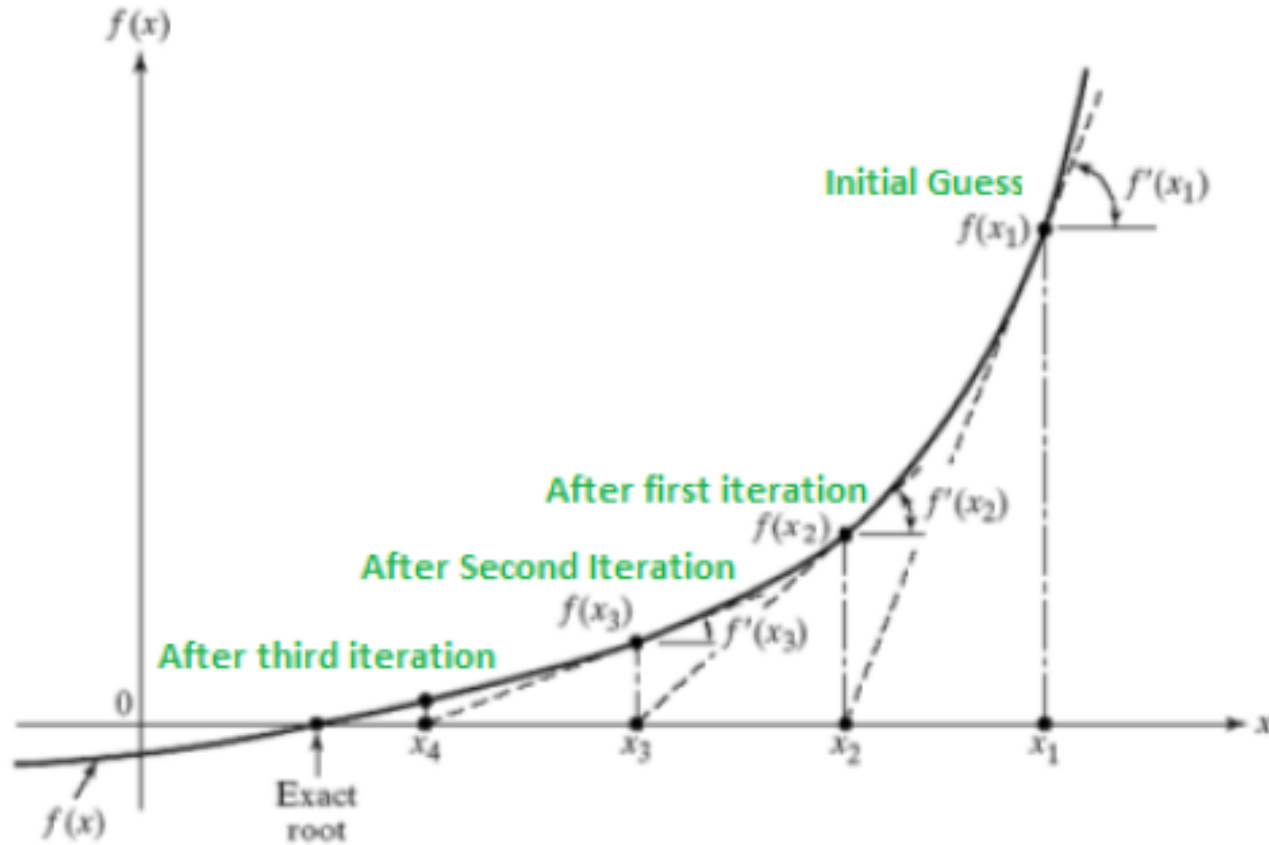


BLG102E  
LAB SESSION FOURTH WEEK

# (1) Newton Raphson Method



Write a C program that

- Gets a function  $ax^2+bx+c$
- Calculates derivative on  $x = k$
- Calculates the root iteratively

## Hints

- Line :  $(y_2 - y_1) = m(x_2 - x_1)$
- Use 2 close points to calculate the derivative  $((x+e)$  and  $(x-e)$ )
- You find the root when the error is very small (Root  $x$  is where  $y \approx 0$ )

## (2) Monte Hall Paradox



## (2) Monte Hall Paradox



Trophy is hidden behind an random door

## (2) Monte Hall Paradox



Contestant selects a door

## (2) Monte Hall Paradox



Host opens an empty and unselected door

## (2) Monte Hall Paradox



Contestant may change the selection now!  
Should contestant change or not?