

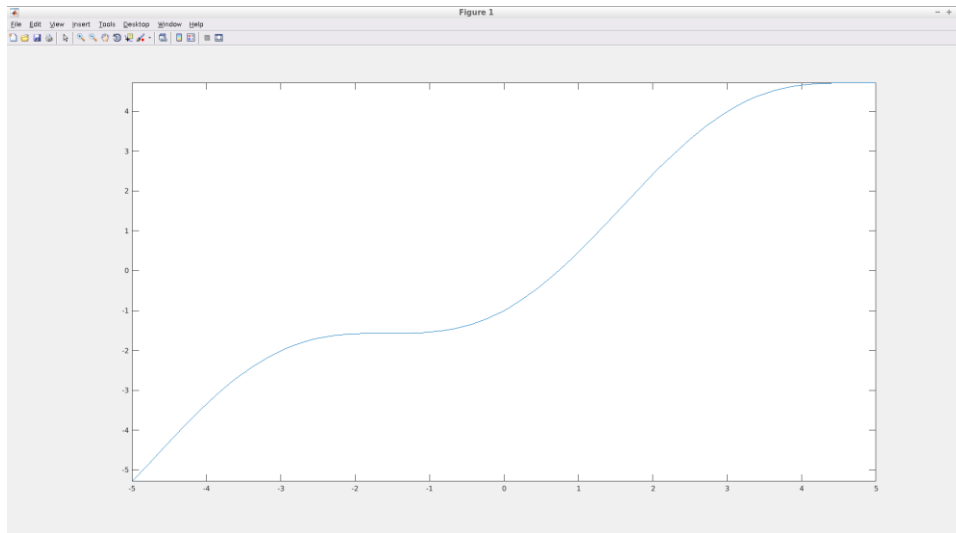
Tanmay Anand

Roll No.:170751

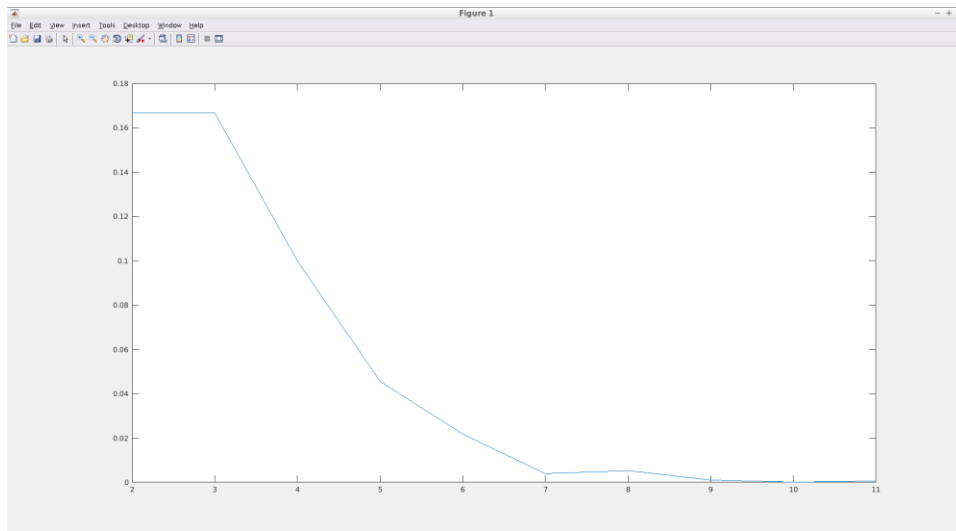
Assignment 1 ESO208A

1.)Bisection method $x-\cos(x)$

$F(x)$ vs x



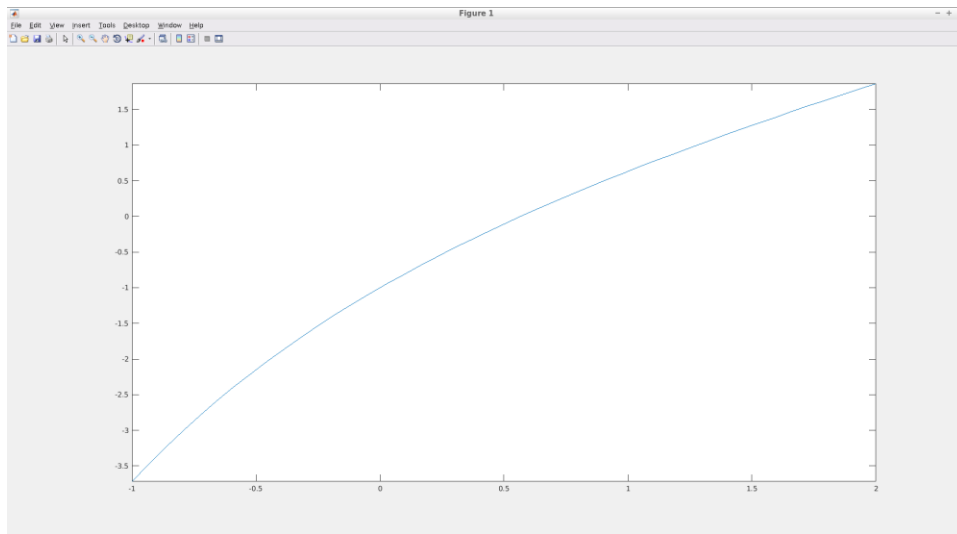
Error vs iterations



Solution: $x=0.7383$

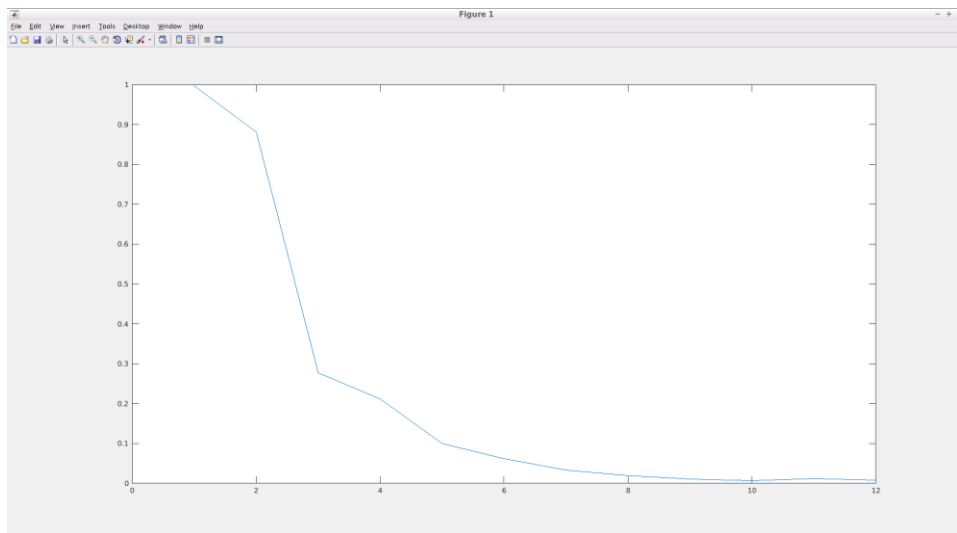
$x-e^{-x}$

$F(x)$ vs x



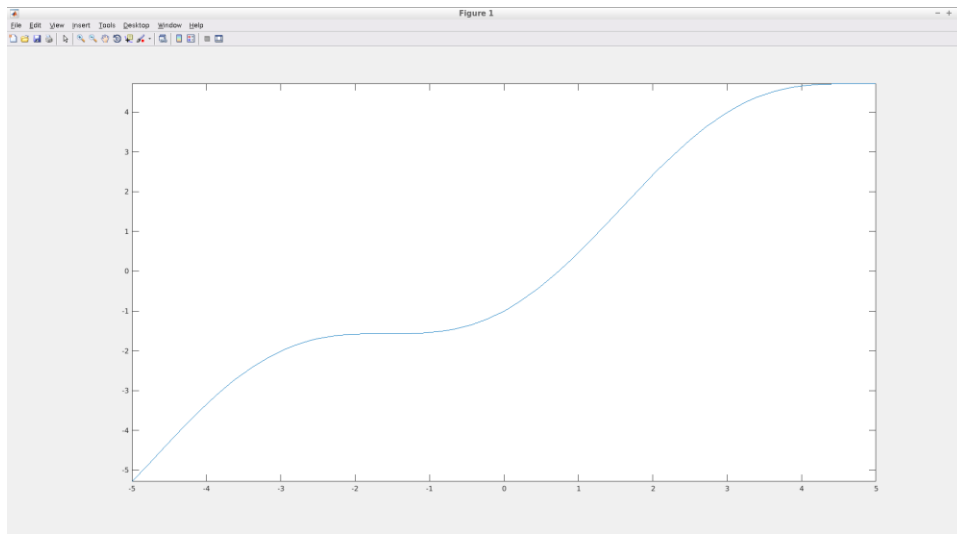
Solution: $x=0.5664$

Error vs iterations

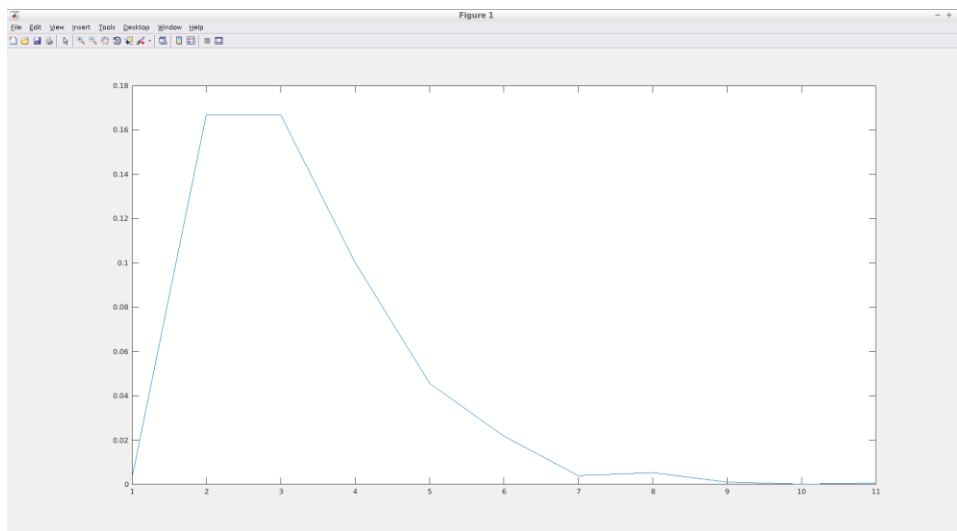


2.) False position

$F(x)$ vs x



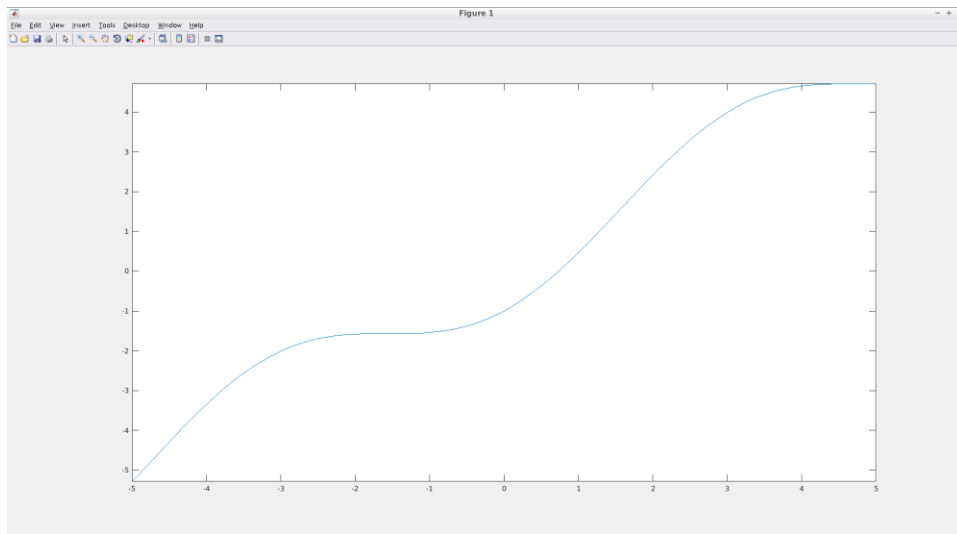
Error vs iterations



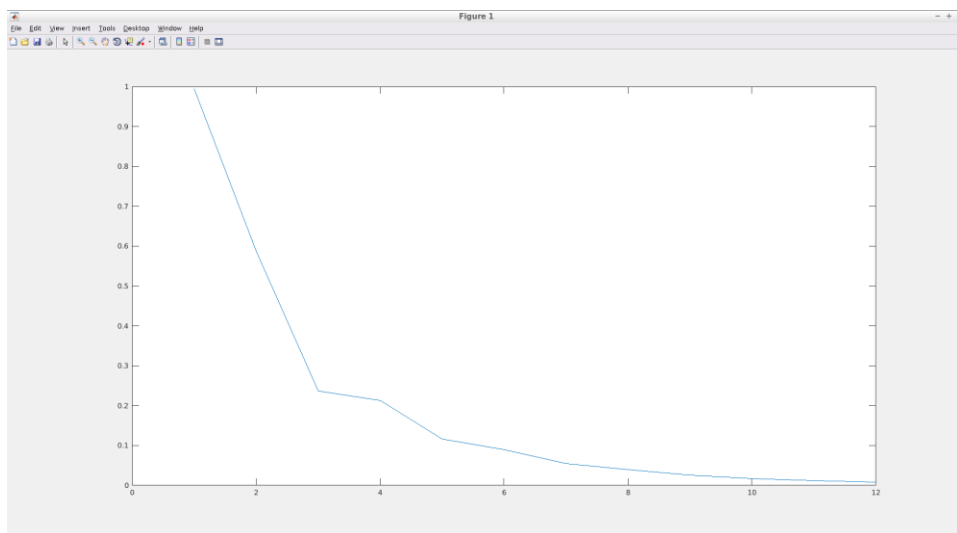
Solution: $x=0.7383$

3.)Fixed Point

$F(x)$ vs x $x=\cos(x)$



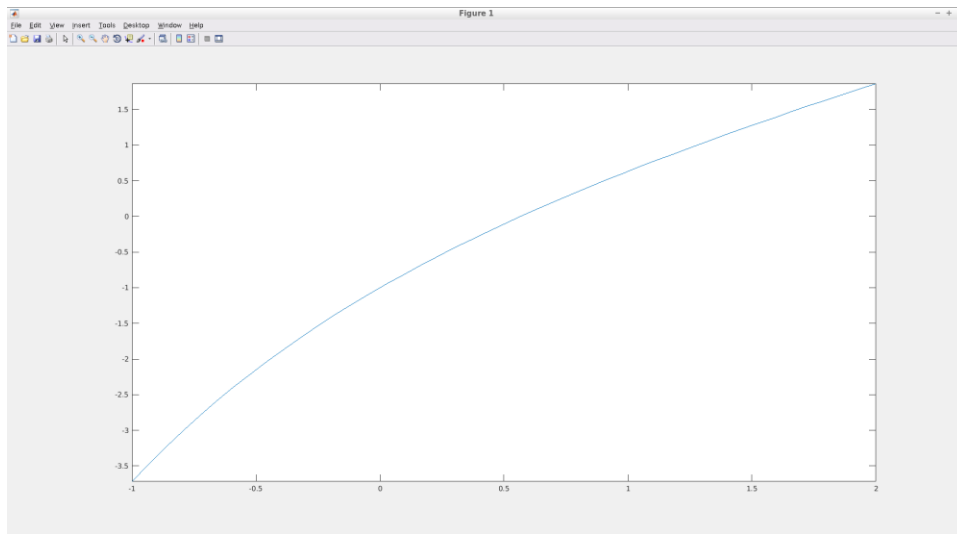
Error vs iterations



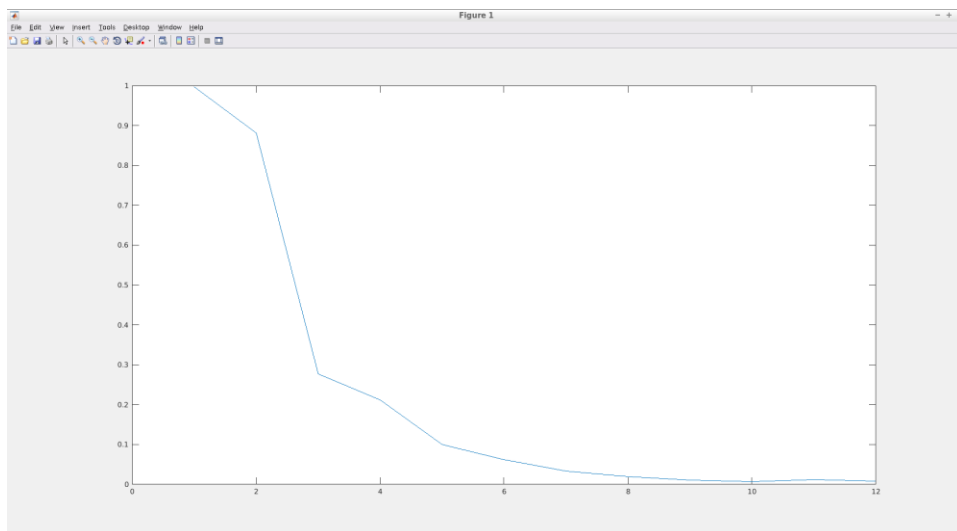
Solution: $x=0.7383$

$x=e^{-x}$

$F(x)$ vs x



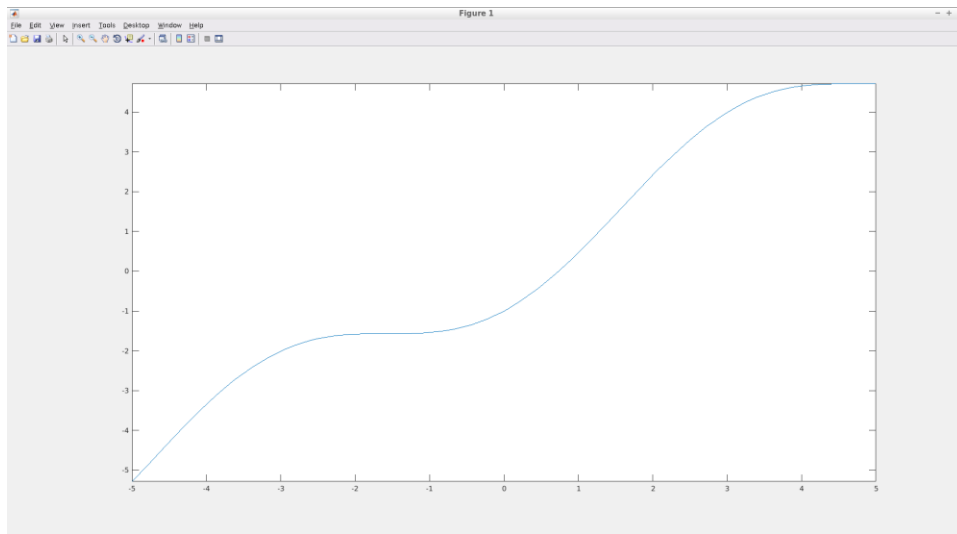
Error vs iterations



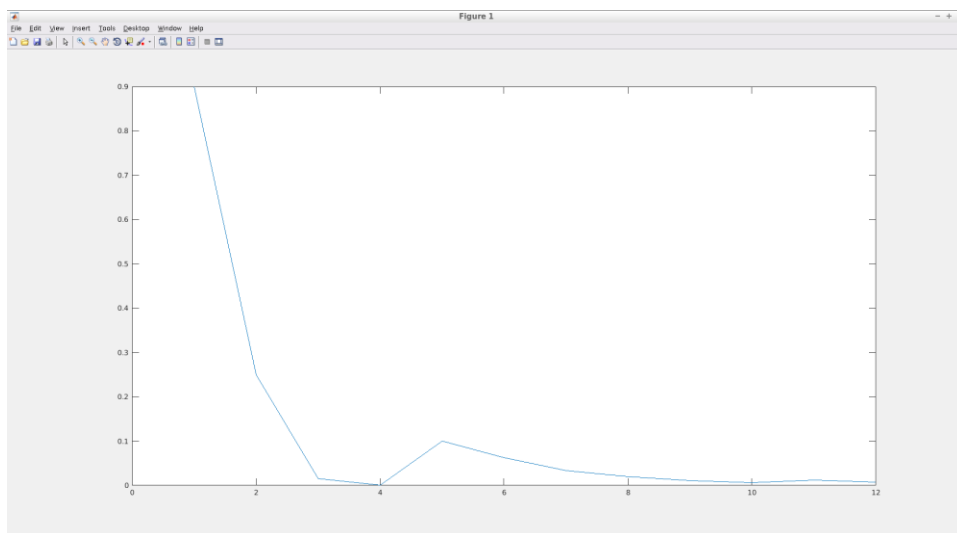
Solution: $x=0.5684$

3.) Newton Ralphson

$F(x)$ vs x $x=\cos(x)$



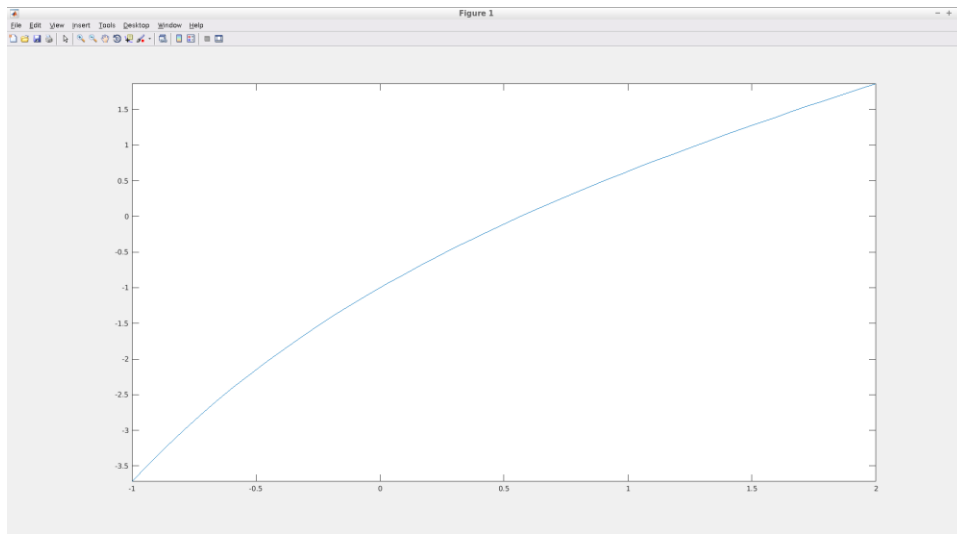
Error vs iterations



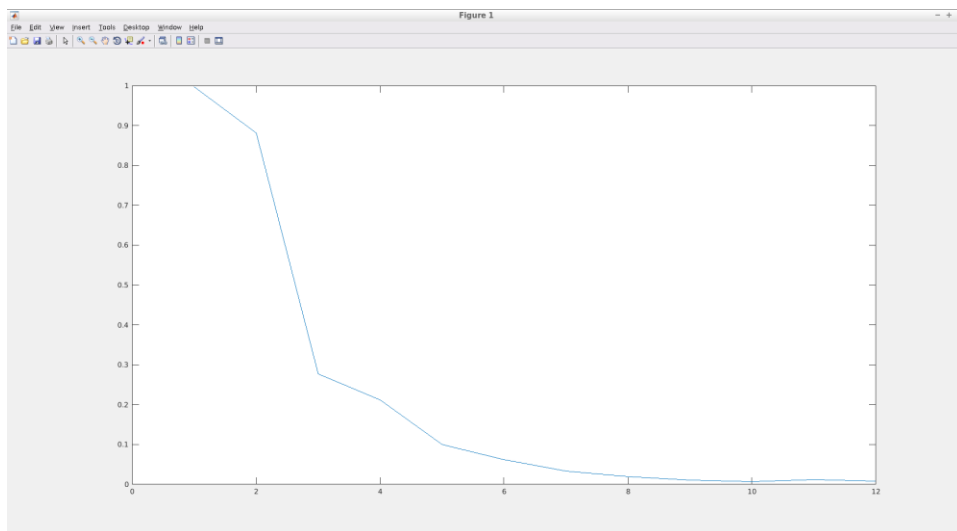
Solution: $x=0.7371$

$x=e^{-x}$

$F(x)$ vs x



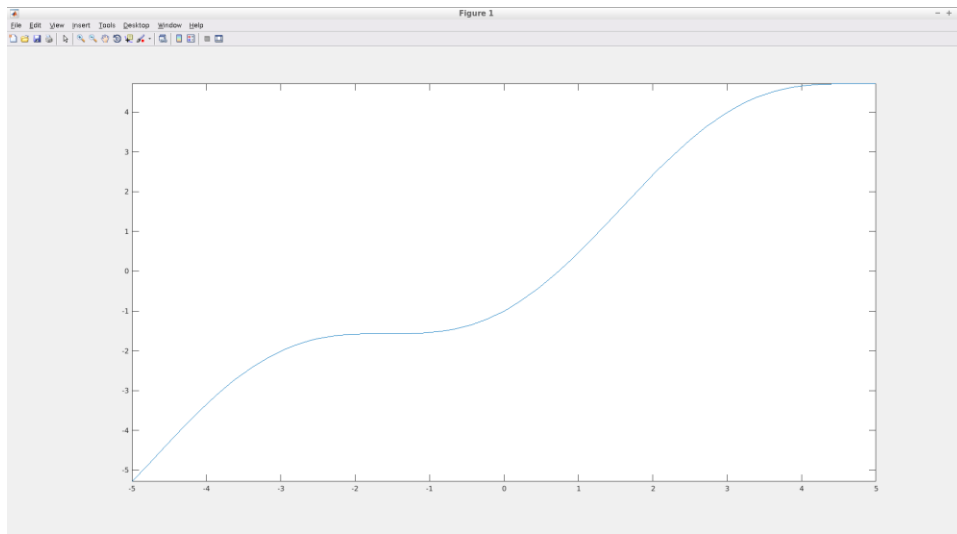
Error vs iterations



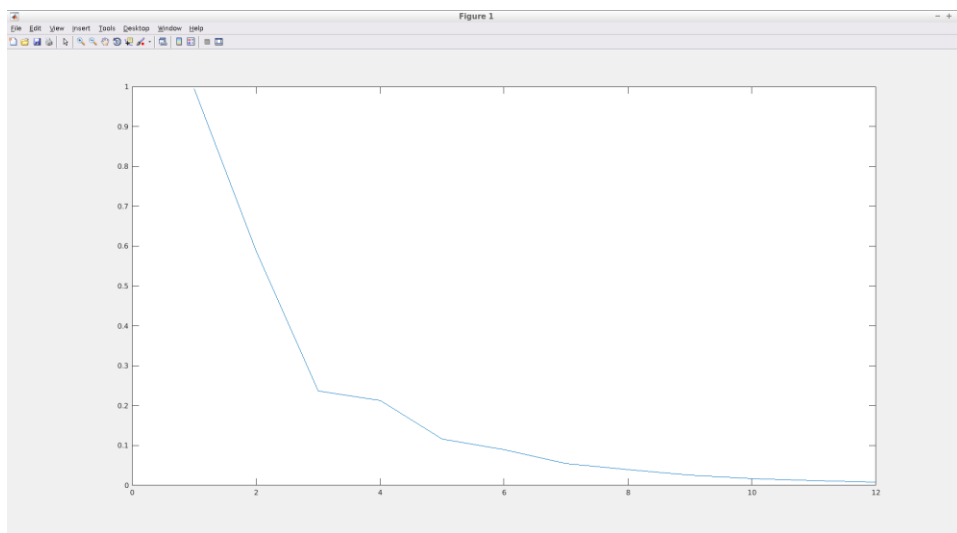
Solution: $x=0.5671$

5.) Secant

$F(x)$ vs x $x=\cos(x)$



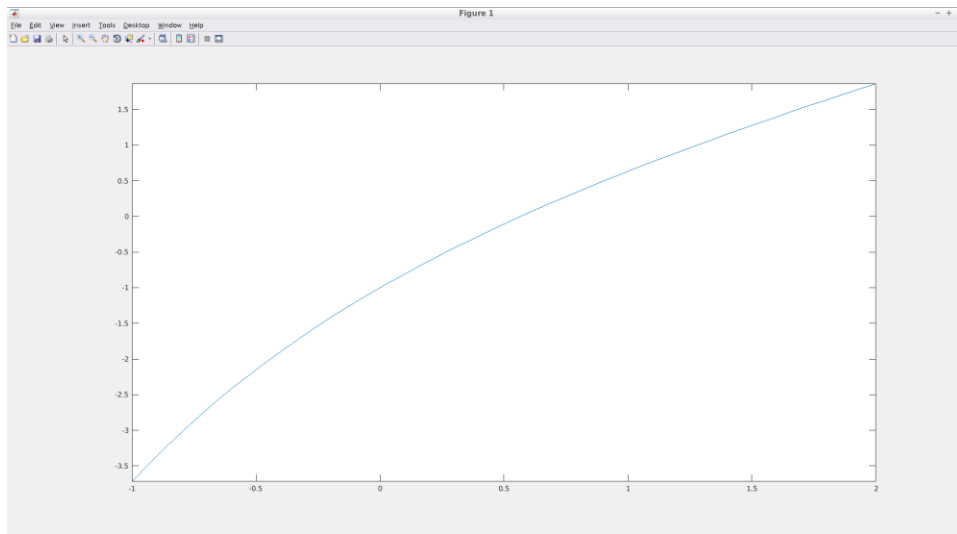
Error vs iterations



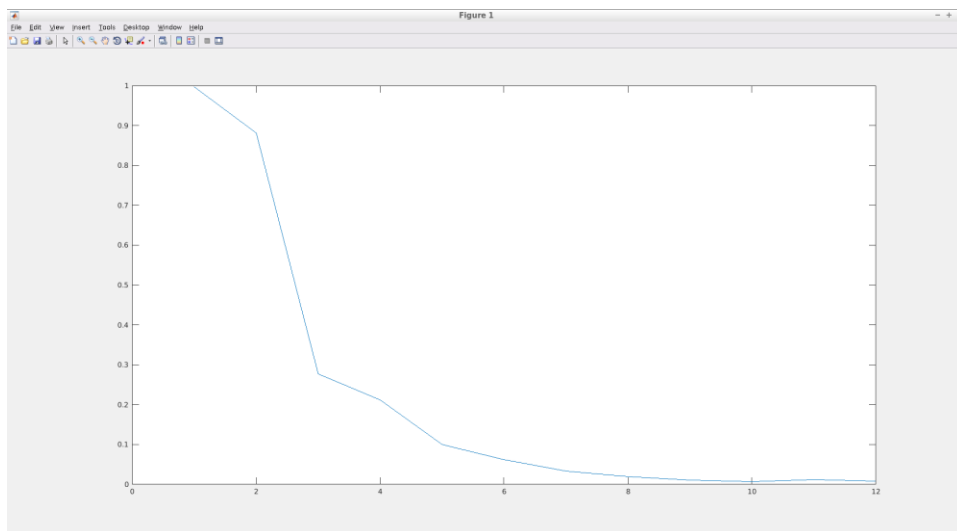
Solution: $x=0.7383$

$x=e^{-x}$

$F(x)$ vs x



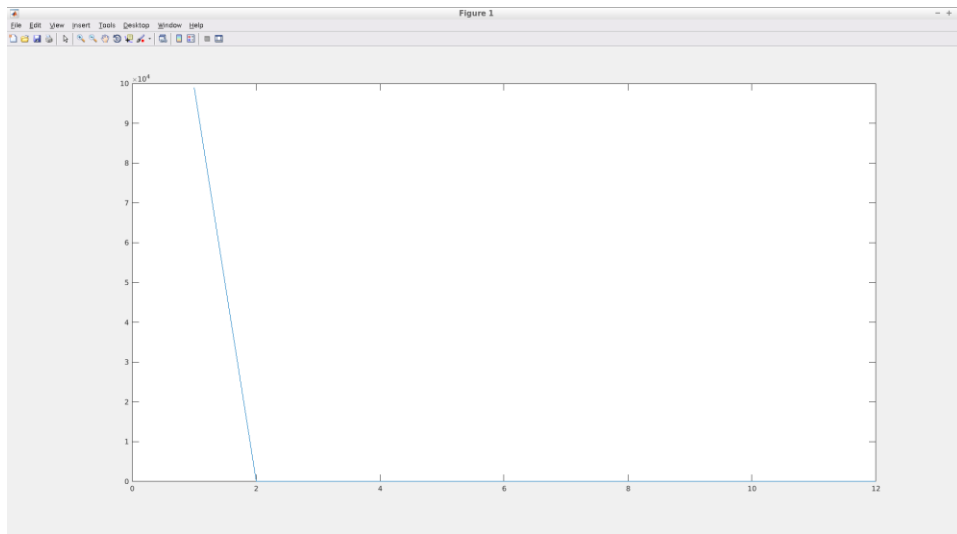
Error vs iterations



Solution: $x=0.5684$

1.)Muller

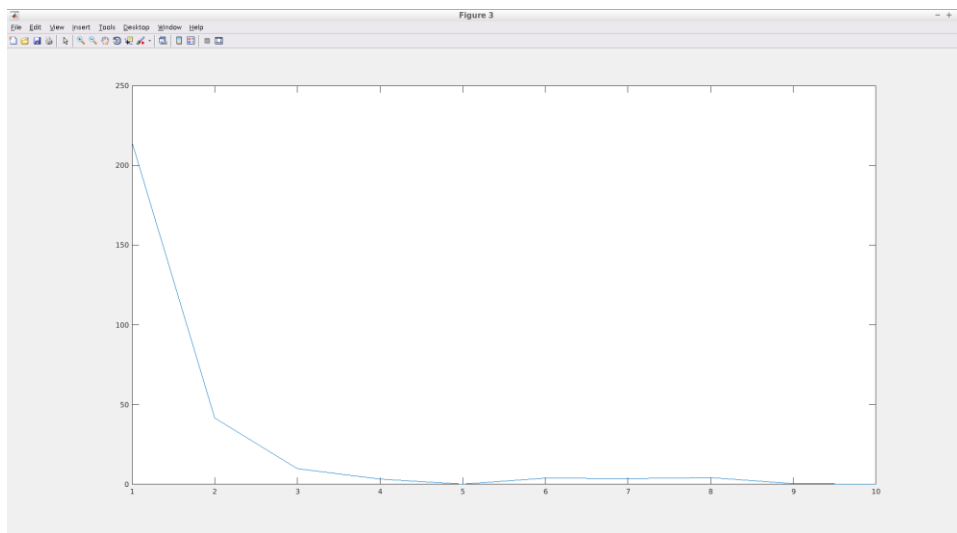
Error vs iterations



Solution: $x=0.8000$

2.)Bairstow

Error vs iterations



Solution: 0.8000 and 2.2000

