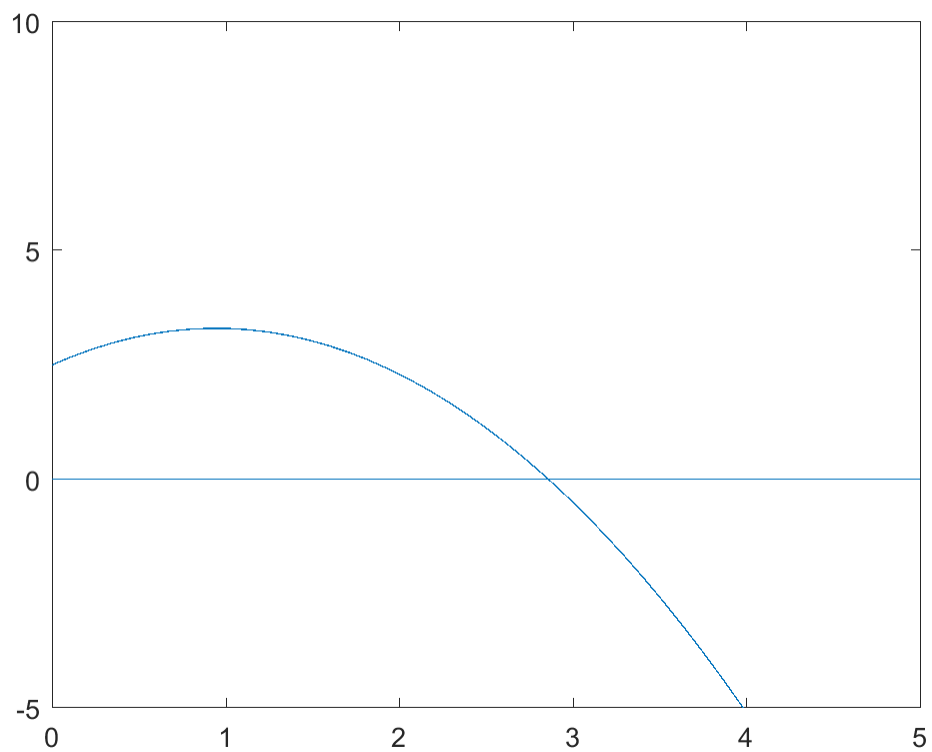

Ryan Fahrenkrug

MECH 105 Homework 9 9/27/2017

```
clc
clear
close all
format long
syms m(x)
syms f(x)
syms g(x)
m(x)=-0.9*x^2+1.7*x+2.5;
f(x)=x;
g(x)=sqrt((1.7*x+2.5)/0.9);
fplot(m);
xlim([0 5])
ylim([-5 10])
refline(0,0)
disp('Fixed Point Method')
fixedPoint(f,g,5);
```

Fixed Point Method

<i>i</i>	<i>x_i</i>	<i>ea</i>
1	5.00	43.02
2	3.50	14.14
3	3.06	4.67
4	2.93	1.54
5	2.88	0.51
6	2.87	0.17
7	2.86	0.06
8	2.86	0.02
9	2.86	0.01



Part 2

```
close all
syms n(x)
n(x)=-0.9*x^2+1.7*x+2.5;
dx=diff(n);
disp('Newton Raphson Method')
newtonRaphson(n,dx,5);
```

Newton Raphson Method

<i>i</i>	<i>xi</i>	<i>ea</i>
1	5.00	46.00
2	3.42	17.11
3	2.92	2.21
4	2.86	0.04
5	2.86	0.00

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