

Python 3.7.4 (default, Aug 9 2019, 18:34:13) [MSC v.1915 64 bit (AMD64)]
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IPython 7.8.0 -- An enhanced Interactive Python.

```
In [1]: runfile('D:/_First_Semester_of_Senior_Year/Numerical_Analysis(1)/homeworks/hw1/hw1_Q7.py',
wdir='D:/_First_Semester_of_Senior_Year/Numerical_Analysis(1)/homeworks/hw1')
```

```
------(a)-----
-----Newton Method-----
```

```
input p0 in range [2,3]: 2.5
```

```
input TOL: 0.0001
x = 2.370686917662517
```

```
input p0 in range [3,4]: 3.5
```

```
input TOL: 0.0001
x = 3.722112773106613
```

```
-----Secant Method-----
```

```
input p0 in range [2,3]: 2
```

```
input p1 in range [2,3]: 3
```

```
input TOL: 0.0001
x = 2.370686907966889
```

```
input p0 in range [3,4]: 3
```

```
input p1 in range [3,4]: 4
```

```
input TOL: 0.0001
x = 3.722112773420417
```

```
------(b)-----
-----Newton Method-----
```

```
input p0 in range [0,1]: 0.5
```

```
input TOL: 0.0001
x = 0.9100075724887138
```

```
input p0 in range [3,4]: 3.5
```

```
input TOL: 0.0001
x = 3.733079028804883
```

```
input p0 in range [6,7]: 6.5
```

```
input TOL: 0.0001
x = 3.7330790286329383
```

```
-----Secant Method-----
```

```
input p0 in range [0,1]: 0
```

```
input p1 in range [0,1]: 1
```

```
input TOL: 0.0001
x = 0.9100075715386231
```

```
input p0 in range [3,4]: 3
```

```
input p1 in range [3,4]: 4
```

```
input TOL: 0.0001
```

```
x = 3.7330790326819776
```

```
input p0 in range [6,7]: 6
```

```
input p1 in range [6,7]: 7
```

```
input TOL: 0.0001
```

```
x = 3.7330791029591563
```

```
In [2]:
```