PROBLEM 1

Part i)

In [1]:
```
import numpy as np

np.set_printoptions(suppress=True, precision=3)
```

Part ii)

In [2]:
```

```

Out[2]:
```
array([   2.259,  295.   ,    1.342,  183.   ,    0.616,   50.   ,
          0.489,   14.   ,    1.147,   90.   ,    7.549, 2969.   ,
          2.053,  374.   ,    0.636,   67.   ,    3.15 ,  378.   ,
         10.314, 1886.   ])
```

Part iii)

In [3]:
```

```

Out[3]:
```
array([[   2.259,  295.   ],
       [   1.342,  183.   ],
       [   0.616,   50.   ],
       [   0.489,   14.   ],
       [   1.147,   90.   ],
       [   7.549, 2969.   ],
       [   2.053,  374.   ],
       [   0.636,   67.   ],
       [   3.15 ,  378.   ],
       [  10.314, 1886.   ]])
```

Part iv)

In [4]:
```

```

```
# Dimensions: 2
Shape: (10, 2)
```

Part v)

In [5]:
```

```

```
0 ,  0  ->  2.2587
1 ,  0  ->  1.3422
2 ,  0  ->  0.6159
3 ,  0  ->  0.4887
4 ,  0  ->  1.1474
5 ,  0  ->  7.5492
6 ,  0  ->  2.0532
7 ,  0  ->  0.6363
8 ,  0  ->  3.1504
9 ,  0  ->  10.3136
```

Part vi)

In [6]:
```

```

Out[6]:
```
array([[  1.342, 183.   ],
       [  0.616,  50.   ],
       [  0.489,  14.   ]])
```

Part vii)

In [7]:

Out[7]:
```
array([[  1.342,   0.616,   0.489],
       [183.   ,  50.   ,  14.   ]])
```

Part viii)

In [8]:

Out[8]:
```
array([[  13.422,    6.159,    4.887],
       [1830.   ,  500.   ,  140.   ]])
```

Part ix)

In [9]:

Out[9]:
```
array([[  14.764,    6.775,    5.376],
       [2013.   ,  550.   ,  154.   ]])
```

Part x)

In [10]:

Out[10]:
```
array([[   1.342,    0.616,    0.489],
       [ 183.   ,   50.   ,   14.   ],
       [  14.764,    6.775,    5.376],
       [2013.   ,  550.   ,  154.   ]])
```

Part xi)

In [11]:

Out[11]:
```
array([[   -1.342,    -0.616,    -0.489],
       [ -183.   ,   -50.   ,   -14.   ],
       [  -14.764,    -6.775,    -5.376],
       [-2013.   ,  -550.   ,  -154.   ]])
```

Part xii)

In [12]:

Out[12]:
```
array([  3.323, 989.61 ])
```