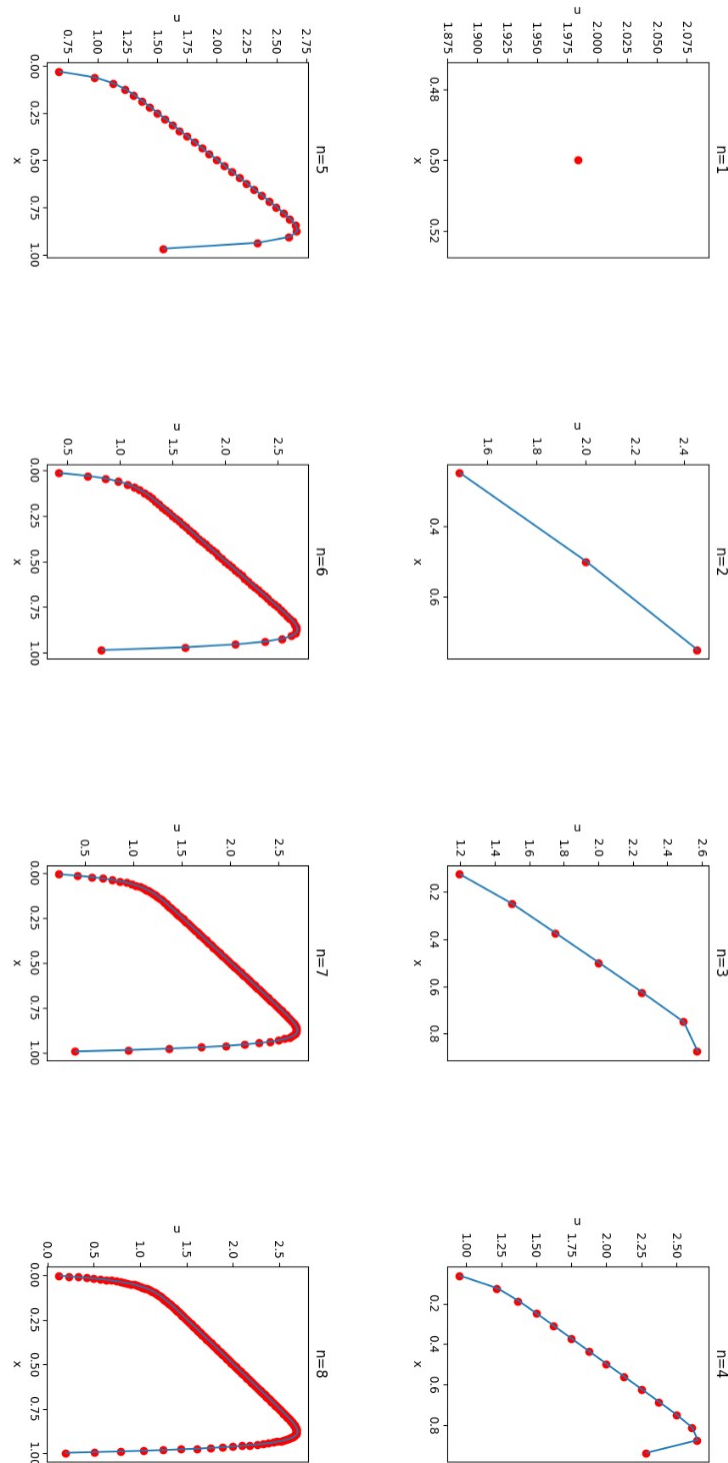


MATH 609  
Anthony Barcio

Code for qs. 4 and 5 is available in relevant folder at <https://github.com/ajbarcio/609HWs.git>  
Use main branch

4. Plotted results:



5a.

```
L      = [[ 1.41421356  0.          0.          0.          ]
           [-0.70710678  1.22474487  0.          0.          ]
           [ 0.          -0.81649658  1.15470054  0.          ]
           [ 0.          0.          -0.8660254   1.11803399]]
L.T    = [[ 1.41421356 -0.70710678  0.          0.          ]
           [ 0.          1.22474487 -0.81649658  0.          ]
           [ 0.          0.          1.15470054 -0.8660254   ]
           [ 0.          0.          0.          1.11803399]]
```

5b.

```
L      = [[1.          0.          0.          0.          ]
           [0.5         0.28867513  0.          0.          ]
           [0.33333333  0.28867513  0.0745356   0.          ]
           [0.25        0.25980762  0.1118034   0.01889822]]
L.T    = [[1.          0.5         0.33333333  0.25        ]
           [0.          0.28867513  0.28867513  0.25980762]
           [0.          0.          0.0745356   0.1118034   ]
           [0.          0.          0.          0.01889822]]
```