

ENAE 441 - 0101
HW00: Homework Template

Due on September 25th, 2025 at 09:30 AM

Dr. Martin, 09:30 AM

Vai Srivastava

December 4th, 2025

Problem 1: Parts (# pts.)

- a. Instructions
- b. Instructions

Solution

Part A

Answer

Part B

Answer

Problem 2: Code (# pts.)

Instructions

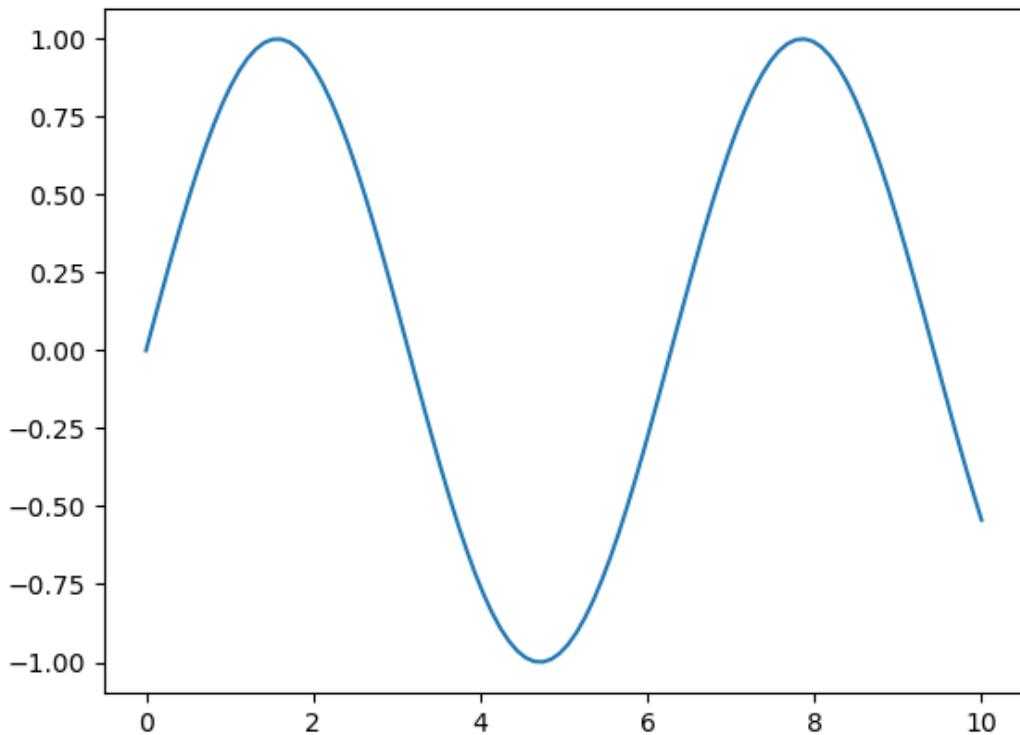
Solution

Figure 1: Example

```

1 | x:
2 | [ 0.          0.1010101   0.2020202   0.3030303   0.4040404   0.50505051
3 | 0.60606061  0.70707071  0.80808081  0.90909091  1.01010101  1.11111111
4 | 1.21212121  1.31313131  1.41414141  1.51515152  1.61616162  1.71717172
5 | 1.81818182  1.91919192  2.02020202  2.12121212  2.22222222  2.32323232
6 | 2.42424242  2.52525253  2.62626263  2.72727273  2.82828283  2.92929293
7 | 3.03030303  3.13131313  3.23232323  3.33333333  3.43434343  3.53535354
8 | 3.63636364  3.73737374  3.83838384  3.93939394  4.04040404  4.14141414
9 | 4.24242424  4.34343434  4.44444444  4.54545455  4.64646465  4.74747475
10 | 4.84848485  4.94949495  5.05050505  5.15151515  5.25252525  5.35353535
11 | 5.45454545  5.55555556  5.65656566  5.75757576  5.85858586  5.95959596
12 | 6.06060606  6.16161616  6.26262626  6.36363636  6.46464646  6.56565657
13 | 6.66666667  6.76767677  6.86868687  6.96969697  7.07070707  7.17171717
14 | 7.27272727  7.37373737  7.47474747  7.57575758  7.67676768  7.77777778

```

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15  7.87878788  7.97979798  8.08080808  8.18181818  8.28282828  8.38383838
16  8.48484848  8.58585859  8.68686869  8.78787879  8.88888889  8.98989899
17  9.09090909  9.19191919  9.29292929  9.39393939  9.49494949  9.5959596
18  9.6969697   9.7979798   9.8989899  10.          ]
19
20 y:
21 [ 0.          0.10083842  0.20064886  0.2984138   0.39313661  0.48385164
22  0.56963411  0.64960951  0.72296256  0.78894546  0.84688556  0.8961922
23  0.93636273  0.96698762  0.98775469  0.99845223  0.99897117  0.98930624
24  0.96955595  0.93992165  0.90070545  0.85230712  0.79522006  0.73002623
25  0.65739025  0.57805259  0.49282204  0.40256749  0.30820902  0.21070855
26  0.11106004  0.01027934  -0.09060615  -0.19056796  -0.28858706  -0.38366419
27  -0.47483011 -0.56115544 -0.64176014  -0.7158225  -0.7825875  -0.84137452
28  -0.89158426 -0.93270486 -0.96431712  -0.98609877  -0.99782778  -0.99938456
29  -0.99075324 -0.97202182 -0.94338126  -0.90512352  -0.85763861  -0.80141062
30  -0.73701276 -0.66510151 -0.58640998  -0.50174037  -0.41195583  -0.31797166
31  -0.22074597 -0.12126992 -0.0205576   0.0803643   0.18046693  0.27872982
32  0.37415123  0.46575841  0.55261747  0.63384295  0.7086068   0.77614685
33  0.83577457  0.8868821   0.92894843  0.96154471  0.98433866  0.99709789
34  0.99969234  0.99209556  0.97438499  0.94674118  0.90944594  0.86287948
35  0.8075165   0.74392141  0.6727425   0.59470541  0.51060568  0.42130064
36  0.32770071  0.23076008  0.13146699  0.03083368  -0.07011396 -0.17034683
37  -0.26884313 -0.36459873 -0.45663749 -0.54402111]
```

Code

See the [Python code](#) for this assignment.