

```

PS C:\Users\Jaidon Lybbert\source\DSP-UW-SP24\homework> python .\hw2.py
a: [1, -4, 1.25, 4.75, 1.5]
b: [1, 0, 0, 0, 0]
r: [ 0.04734694  0.02857143 -1.28          2.20408163]
p: [-0.5 -0.5  2.   3. ]
k: []

```

Fig. 1 Problem M1 - partial fraction decomposition with `scipy.signal.residuez()`.

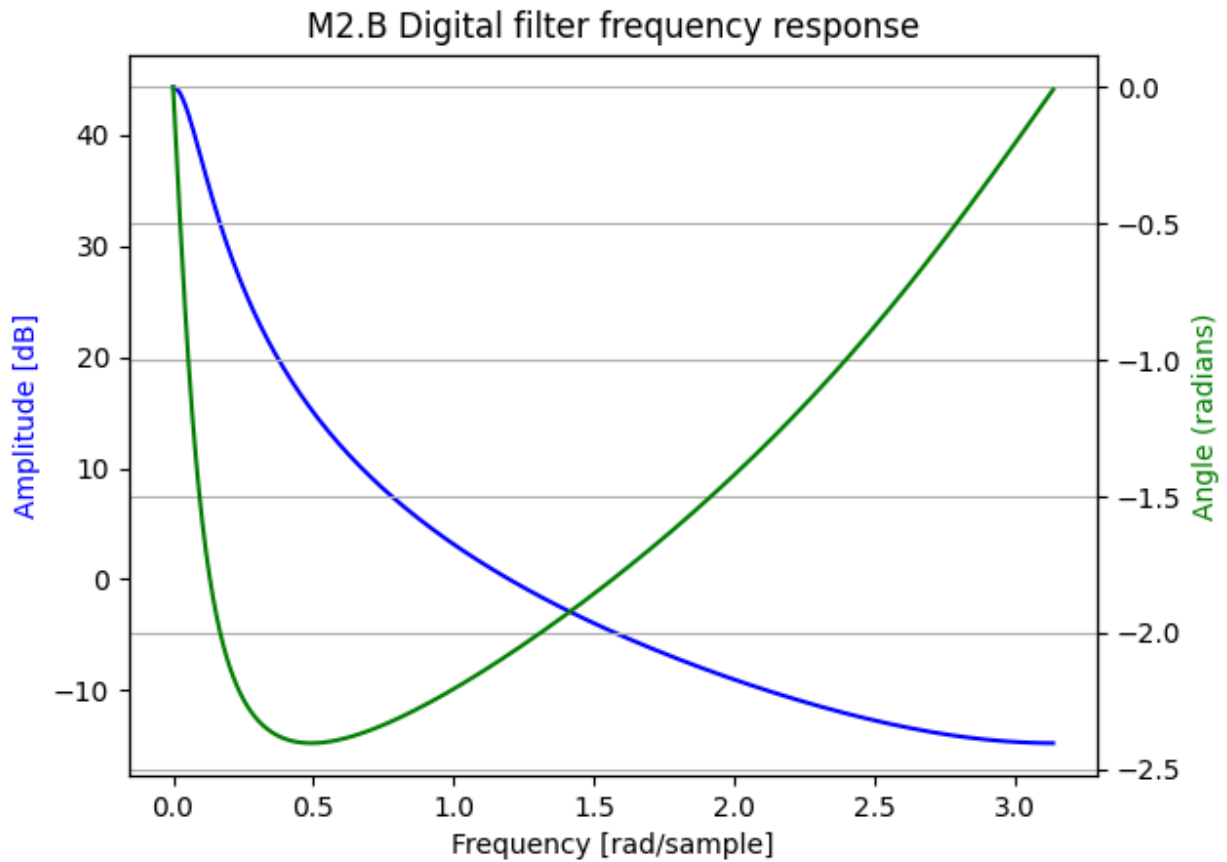


Fig. 2 Problem M2 part B, magnitude and frequency response.

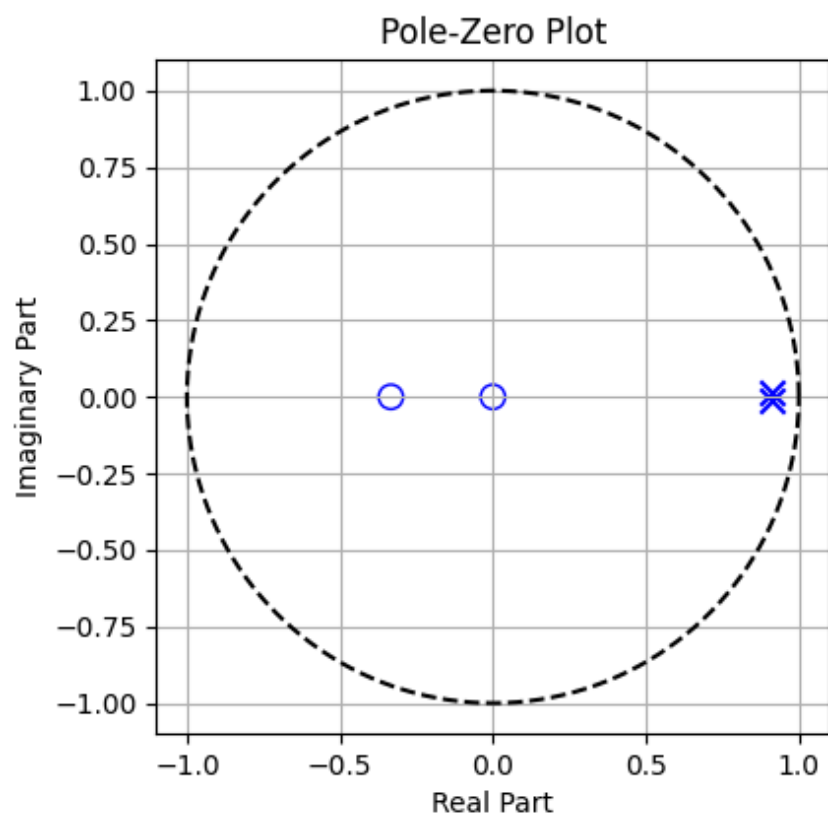


Fig. 3 Problem M2 part C, pole-zero plot.