

Problem 9.7

Given, the polynomial: $P(z) = 1 - \frac{1}{2}z^{-1} + \frac{1}{2}z^{-2} - z^{-3}$. Factoring this polynomial yields,

$$\frac{1}{z^3}(z^3 - \frac{1}{2}z^2 + \frac{1}{2}z - 1).$$

Plot in the complex plane:

