PROBLEM:

Given a feedback filter defined via the recursion:

$$y[n] = -0.98\, y[n-2] + 3x[n] - 3x[n-1] \qquad \text{(DIFFERENCE EQUATION)}$$

(a) Find the z-transform operator representation $H(z)$ for the system in the difference equation.

(b) Find the poles and zeros of the system and plot their location in the z-plane.