

## **PROBLEM:**

Given a feedback filter defined via the recursion:

$$y[n] = -0.98 y[n-2] + 3x[n] - 3x[n-1]$$
 (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.

McClellan, Schafer and Yoder, Signal Processing First, ISBN 0-13-065562-7. Prentice Hall, Upper Saddle River, NJ 07458. © 2003 Pearson Education, Inc.