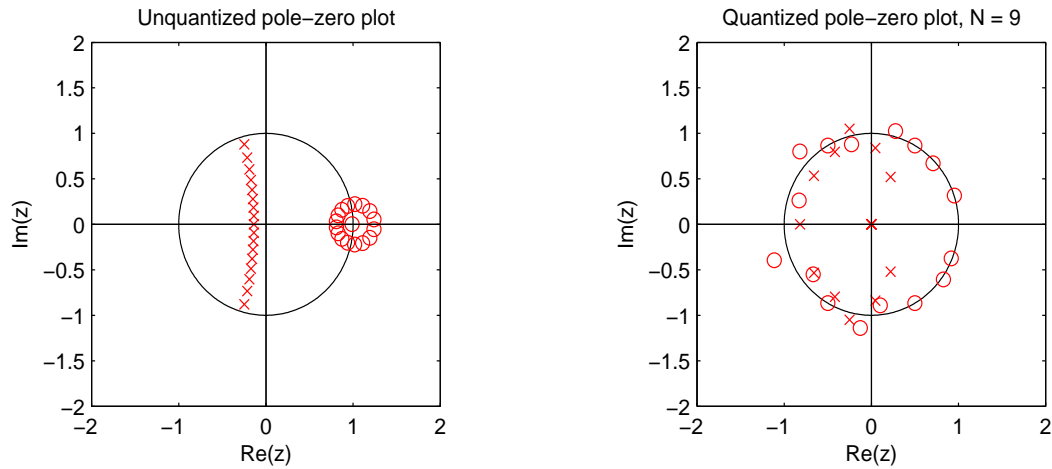


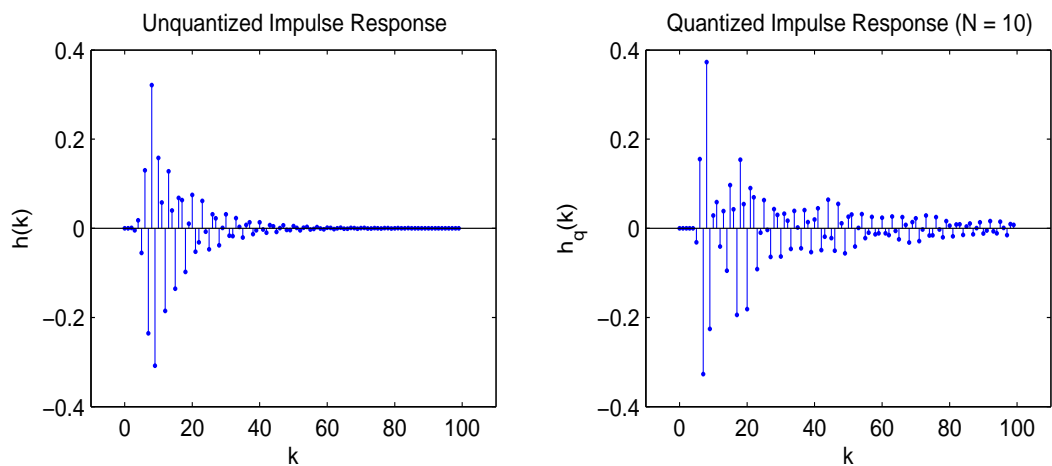
5.36 Use the GUI module *g\_filters* and select an IIR highpass filter. Use the default parameter values, but adjust the number of bits of precision  $N$  to highest value that still makes the quantized filter go unstable.

- Plot the unstable pole-zero plot
- Increase  $N$  by one so the quantized filter becomes stable. Then plot the impulse response.

### Solution



(a) Unstable Pole-Zero Plot



(b) Stable Impulse Response