

ECE-486 Spring 2009, Feb 20 Quiz

Name : _____

An FIR filter is described by

$$y(n) = x(n) + x(n - 2)$$

1. Compute and sketch the magnitude response of the filter.
2. Assuming that the input sequence $x(n)$ is obtained by sampling a continuous-time signal $x_c(t)$ at a sample rate of 48 ksps, identify all continuous-time frequencies below 24 kHz which would be eliminated by the above filter.