

ECEn 487 - Introduction to Digital Signal Processing**Winter 2013**

Quiz 1

1. The following is the z-transform of the system response for an LTI system:

$$H(z) = \frac{8 + 15z^{-1} + 3z^{-2}}{1 + \frac{7}{2}z^{-1} + \frac{3}{2}z^{-2}}$$

- (2 pts) What are the possible regions of convergence?
2. (2 pts) Which of the above regions of convergence has a Fourier transform?
3. (6 pts) What is the discrete-time impulse response sequence for this system if it is causal?