ECEn 487 - Introduction to Digital Signal Processing

Winter 2013

Quiz 2

1. Suppose you have a z-transform $X(z)$ of a causal sequence $x[n]$. It has poles at $\frac{1}{2}+\frac{1}{2}j$, $\frac{1}{2}-\frac{1}{2}j$, and $-\frac{3}{4}$. It also has a zero at the origin. Sketch the pole-zero diagram of $Y(z)$ where $y[n]=x[-n+3]$. Also, specify the ROC for $Y(z)$.