<table>
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<tr>
<th>LECTURE #11</th>
<th>ECE 410</th>
<th>10/4/05</th>
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RAT

List one question you'd like answered before Exam 1. (It could be an example or homework problem you want to see worked out.)
IN-CLASS

Consider the filter defined by the system function $H(z)$

$$H(z) = \frac{1}{1 - e^{-\frac{j\pi}{4}} z^{-1}} \quad |z| > 1$$

a) Determine the impulse response $h[n]$. Is $h[n]$ real?

b) Sketch the pole-zero plot.

c) Is this system stable?

d) Is the system causal? If so, find a difference equation representing this system.