

## ECE-486 Spring 2009, Jan 23 Quiz

Name : \_\_\_\_\_

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A discrete-time system with input  $x(n)$  and output  $y(n)$  is described by

$$y(n) = x(n) \cos(2\pi(0.15)n), \quad -\infty < n < \infty.$$

Determine whether the system satisfies the following system properties. In each case, justify your answer.

1. Linear?

2. Causal?

3. Time Invariant?

4. Stable?