

ECEN 380 Exam #1 Review

Understand the difference between continuous and discrete systems and how they're defined.

For **both continuous and discrete signals and systems**:

- Given a graph or an equation for a signal, be able to time-shift and scale the independent variable.
- Be able to determine if a signal is periodic and if it is, be able to find the fundamental period.
- Given input-output pair graphs, be able to determine if a system CAN have various properties, such as memoryless, causal, linear, time invariance, and stable.
- Given system equations, be able to determine which system properties the system has, such as memoryless, causal, linear, time invariance, and stable.
- Given a system, be able to determine if the system is invertible or not, see section 1.8.4.
- Be able to evaluate and sketch the sum of two signals and the product of two signals.
- Given a block diagram of a system, know how to derive expressions for the output y in terms of the input x .