Deterministic and Random Signals

Sin Signal = x(n) = cos n

Exponential Signal = x(n) = ejwn

Ramp Signal = x(n) = αn

Periodic and Non-periodic Sequences

A discrete-time signal x(n) is said to be periodic if it satisfies the

condition

x(n) = x(n + N) for all integers n

Energy and Power Signals

The total energy E of a discrete-time signal x(n) is defined as:

A black and white symbol

Description automatically generated

the average power P of a discrete-time signal x(n) is defined as:

A math equations with numbers and symbols

Description automatically generated with medium confidence

Static (memoryless) and dynamic (memory) systems

Memory Functions = holds more than one input and processes them sequentially   
Memoryless functions = processes inputs instantly