

Week 1 - Things to know

Know how:

to transform from rectangular to polar coordinates and vice versa

to compute complex roots given polar and rectangular coordinate expressions

be able to define and plot unit impulse, constant, unit step, linear sequences and signals

to shift signals or sequences

to describe a sequence in terms of unit impulses

to check whether a signal/sequence is periodic and how to compute the period

to plot real and complex exponential sequences and signals. For complex exponential

using either rectangular or polar expressions

to check whether a complex exponential is periodic or not

to plot a sinusoidal sequence/signal

to compute the period of a sinusoidal sequence

to define the digital frequency in terms of the analog frequency

to explain and apply the Nyquist theorem

to interconnect systems

to check whether a system has memory, is causal, is invertible or not