Digital Signal Processing

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Frequency-Based Analysis, Part 4

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Last time's learning objectives

- Simplify DTFT computation by…
  - Using a table of transform pairs
    - DTFT equation is not usually necessary
  - Using DTFT properties
    - In particular, linearity and time-shift properties

Today's learning objectives

From **today's lecture**, you should **be able to**…

- Use Matlab to…
  - Visual signals
  - Compute convolution
  - Compute/visualize DTFTs

Matlab Primer

- Using Matlab as a fancy calculator
- Defining and plotting signals
- Math operations with signals
  - **Key point**: Matlab can do calculations on vectors (and matrices) **without us needing to write loops**
- Computing and visualizing spectra

This lecture consisted of various demos in Matlab. There are no notes; please see the video.