

Homework 2
EE 313 Signals and Systems (Fall 2024)
Friday, September 13, 2024

- 1) 2.2a Also, plot $x[n]$ for $0 \leq n \leq 40$ (no stem labels) and plot $y[n]$ for $0 \leq n \leq 5$ (w/ stems labeled). Assume $x[n]$ is zero for all other indices.
- 2) 2.5c Solve manually. Also, sketch $h[n]$ w/ stems labeled. [Hint: Exploit time-invariance to re-index I/O difference equation.]
- 3) 2.6d Find an analytic solution
- 4) 2.8cd Do problem manually. Sketch results w/ stems labeled.
- 5) 2.12ab Plot results w/ stems labeled for $0 \leq n \leq 15$.
- 6) 2.16(iii) Do problem manually. [Hint: Exploit time-invariance to re-index I/O difference equation.]
- 7) 2.18a Label stems on plot.
- 8) 2.19b Do problem manually. [Hint: Exploit time-invariance to re-index I/O difference equation.]

For problems that involve the use of MATLAB, include both m-file(s) (put your name in a comment line) as well as output figures (put your name in title), preferably on same page (e.g., cut-n-paste into MS-Word before printing), for each problem and/or problem section.

**Due Thursday, September 19, 2024 by noon at my office (EEP 314) or
mail box in department office.**