

University of Pennsylvania
Department of Electrical and System Engineering
Digital Signal Processing

HW0: Matlab Tutorial and Review

Thursday, January 18

Due: Not to be turned in.

- **Complex Math Review:** You should re-familiarize your complex math background by reviewing the Khan Academy complex numbers section. The more you refresh yourself with this, the easier it will be to follow along in lecture. In particular refreshing your recall of complex number in polar coordinates and plotting on the complex plane.
<https://www.khanacademy.org/math/algebra-home/alg-complex-numbers>
- **Signals Review:** You should make sure to review your signals background by reviewing the knowledge roundup
https://www.seas.upenn.edu/~ese5310/spring2024/knowledge_roundup.html
and using either the OCW or Oppenheim reference to refresh your signals and system knowledge. Both references list 5 topics and resource material as well as practice problems. It is important to bring this information back to the forefront of your memory to follow along in lecture as I will not repeat these fundamental topics in lecture.
- **Matlab Tutorial** You should familiarize yourself with Matlab. While, the homework will help with usage the tutorial posted on the course calendar
https://www.seas.upenn.edu/~ese5310/spring2024/handouts/MATLAB_tutorial.m
is a good introduction for Matlab basics. You should view it in a text editor and not actually run it as an .m file to begin with. Additionally you can reach out to your TAs for additional resources.