Set #1

Proposed first meeting on this set is Monday June 13

Homework format

- Specifically assigned “work-on-the-board” problems will be worked by a particular student
- All problems will be worked on paper and turned the week following the class session the corresponding problems are worked on the board
- Write only on one side of the paper

Problems

3. Text problem 2-10. You may wish to try a MATLAB simulation of part (a) using the function `psd()` to estimate the power spectral density using averaged periodogram. We will talk about this in class.
4. Text problem 2-12.
5. Text problem 2-13. Again you may wish to try a MATLAB simulation using the function `psd()`.
6. Text problem 2-15. Hint: Write the spreading waveform as

\[ c(t) = \sum_{n=-\infty}^{\infty} c_n p(t-nT_c) \]

where \( c_n = \pm 1 \) and \( p(t) \) is a unit amplitude pulse of width \( T_c \). The rv sequence \( \{c_n\} \) is assumed to be independent and identically distributed (iid). The values \( c_n \) takes on are assumed to occur with equal probability.