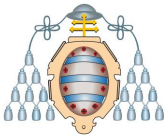

Chapter 5: Worksheet

These worksheet proposes a number of exercises complementing the problem-solving sessions as well as the short exercises in the slides. This list is not exhaustive and you can consider additional exercises form the corresponding books in the bibliography.

If you have any doubts regarding notation, you can resort to the conversion table available in the virtual campus.

Note: exercises from the book "Signals and Systems" by A. Oppenheim are enumerated according to the second edition.

Exercises from: Señales y Sistemas Escalares Unidimensionales de Variable Real. Ejercicios Resueltos. Vol. ST-II. GR Editores S.L., León, 2009 sobre distribuciones 1

4.6.

Exercises from "Signals and Systems" (A. Oppenheim) about distributions 2

1.13, 1.14, 1.21, 1.38, 1.39, 2.20, 2.69, 2.72, 2.73

Kindly note that A. Oppenheim defines $u_n(x) = \delta^{(n)}(x)$ with $n \geq 0$. Besides, $u_{-1}(x) = \int_{-\infty}^{x'} \delta(x')dx' = u(x)$ y $u_{-n}(x) = \int_{-\infty}^{x} u_{-n+1}(x')dx'$.

Exercises from "Signals and Systems" (A. Oppenheim) about linear systems 3

2.8, 2.11, 2.12, 2.14, 2.22, 2.23, 2.29, 2.40, 2.44, 2.45, 2.46, 2.47, 2.48. 264, 2.66, 2.67, 2.68, 2.71 (skip questions related to discrete-variable systems)