

Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

6.011: SIGNALS, SYSTEMS AND INFERENCE

Spring 2018

Problem Set 10
Hypothesis Testing

Reading: Chapter 9. To make a start on this problem set in advance of Monday's lecture, read and make sense of Section 9.2 till just before Example 9.1, and also tackle Section 9.3.1.

There will be **one more homework set**: Problem Set 11 will go out next week, and will be devoted to the material in Chapter 13. Although that problem set is not to be turned in, it **will not be optional**, in the sense that the material on it will absolutely be covered on the final exam. Around half of the final exam will likely be devoted to material covered after Quiz 2, and much that to hypothesis testing for random variables and for signals, i.e., the material on this problem set and the next. So do pay attention to these two problem sets!

Problem 10.1

Problem 9.6 (in the hardcover "North American" edition of SSI, which is also Problem 9.1 in the softcover "Global Edition" of SSI)

Problem 10.2

Problem 9.10 (which is Problem 9.15 in softcover).

Problem 10.3

Problem 9.17 (which is Problem 9.18 in softcover)

Problem 10.4

Problem 9.22 (which is Problem 9.19 in softcover).

Problem 10.5 (Optional)

For additional practice, try Problems 9.1, 9.2, 9.3, 9.4, 9.9, 9.11, 9.12, 9.13, 9.14, 9.16, 9.20, 9.23 (which are Problems 9.3, 9.5, 9.2, 9.7, 9.10, 9.13, 9.9, 9.14, 9.11, 9.12, 9.23, 9.22 in softcover).

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