Math 447 - Fall 2025 - Homework 10

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Status - Reading Assignments:

Here are the reading assignments to be completed before the first one of this HW.

WMS (Wackerly, et al. Textbook):
    ch.2 - 5.3, parts of ch.6.5;

MF447 lecture notes:
    ch.1 - 11

Other:
    Nothing assigned yet

> Really important: For the WMS reading assignments, work through the examples!

Reading assignment 1 - due Monday, October 27:
  a. Carefully read MF ch.12.1 and ch.12.2. Only 10 pages, but not an easy read.

Reading assignment 2 - due: Wednesday, October 29:
  a. Carefully read MF ch.12.3. Do so with your Stewart Calc III book at your side! Not an easy read! Note that this material is guaranteed to appear on the final and/or on midterm 3!
  b. Carefully read MF ch.12.4. Easier to digest than the previous sections of Ch.12.

Reading assignment 3 - due Friday, October 31:
  a. Carefully read WMS ch.6.1-6.5. You have already encountered the material in MF ch.12. Your focus should be on the fully worked examples!

Written assignments are on the next page.

> **General note on written assignments:** I will not collect those assignments for grading but doing them might be helpful for your quizzes and exams.

(a) Work closed book through the examples given in the assigned reading, both in MF and WMF.

(b) Write from memory the definitions and theorems of MF ch.12. Be sure that you can get Theorem 12.1 and its multidimensional generalization, Theorem 12.2, essentially right.

(c) Conditional expectations are very important, so the same is true for MF ch.11.7 and WMS ch.5.11.

(d) All WMS exercises below are odd-numbered, so the solutions are in the book.
- WMS ch.5.9 exercises: #5.119, 5.123
- WMS ch.6.3 exercises: #6.1, 6.3, 6.9
- WMS ch.6.4 exercises: #6.23, 6.31, 6.35
- WMS ch.6.5 exercises: #6.37, 6.39
- WMS ch.6.7 exercises: #6.73, 6.83, 6.87

Selected answers:

None, since all answers to **(a)** can be found in WMS and the lecture notes.