### Chapter 12

## Group Assignments

#### 12.1 Group Assignment 1

- Prove Lemma 1.14
- Prove Lemma 2.8
- Prove property 4 of Theorem 2.18
- Solve Exercise 2.59
- Prove the "tower property" (Theorem 2.60) for a discrete random variable taking a finite number of values.

#### 12.2 Group Assignment 2

- Prove Corollary 3.7.
- Prove Lemma 3.15, properties 1-4.
- Solve Exercise 3.16
- Solve Exercise 4.7
- Prove Theorem 4.9 with all details, basically referring to all the properties of the indicator function used, the monotonicity of measures etc.

#### 12.3 Group Assignment 3

- Solve Exercise 5.20
- Solve Exercise 6.11

- Solve Exercise 6.19
- Solve Exercise 7.12
- Solve Exercise 7.17

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