

Study Guide (Week 8-10)

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Expectations

1. Expected value: 3.30, 3.32, 3.37
2. Variance: 3.15, 3.31
3. Moment generating functions: 5.13, 5.15
4. Transformation of random variables: 5.7, 5.8

Combined Section on Distributions and Expectations

See exercises 3.18, 3.51 – 52, 5.12, 5.16, 5.24

Joint Distributions

1. Discrete case: 6.2, 6.19
2. Continuous case: 6.5, 6.35
3. Independence: 6.27, 6.32, 7.3
4. Expectation: 8.4, 8.7, 8.11, 8.9
5. Covariance: 8.14, 8.16, 8.17

Combined Section on Distributions and Joint Distributions

See exercises 6.6, 6.11, 6.12, 7.5, 8.15

Conditional Distributions

See exercise 10.1, 10.2, 10.5, 10.9

Note: This study guide is used for Botao Jin's sections only. Comments, bug reports: b_jin@ucsb.edu