

Math 477, Review problems for Midterm 2

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I will be covering these problems in the review session.

If you go over these problems before the exam, you should be fine.

Plan for the exam: Problem 1: Poisson + binomial rand. var.

Problem 2: Geometric + exponential rand. var.

Problem 3: Algebra of probability density functions.

Problem 4: Exponential + Uniform rand. var.

Problem 5: Expectation + Variance of a general random variable.

Problem 6: Normal + sum of the normal random var.

Problem 7: Joint density, marginals, Joint distribution.

Problem 8. Linearity of Expectation, Problem 9. Variance of sums.

You will have to do only (!) 8 problems.

Calculators will not be allowed.

However, you will not be asked to simplify the expressions that you get.

You will still have to integrate, though...

You can have one double-sided cheatsheet.

Problems from review: TE = theoretical exercise, ST = self-test problems

Chapter 4: 42, 45, 50b, 61, 64, 66; *ST3, ST18, ST9, ST17*.

Chapter 5: 25, 28, 29, 37, 40, *TE19, ST16, ST17, ST9*.

Chapter 6: 27, 28, 33, *TE8, ST3, ST6*, example3d from the book.

Chapter 7: 9, 12, 17, 19, 36, 38, 42, 45, *TE19, TE22, ST2, ST3, ST4, ST5, ST12*.