

MATH 371: Introduction to Probability  
Details of the final exam.

The final exam in MATH 371 will take place on Wednesday, December 13 from 1:00 – 3:00 in our regular classroom. The exam will last two hours in length.

The exam in Probability is cumulative, though you should expect its emphasis to be on recent materials. As usual, you may use a calculator for computations and consult the inside cover and tables in your textbook. You may also bring a single sheet of paper with formulas on it. (For example, I don't really expect you to memorize the covariance formulas for  $\text{Cov}(\sum_{i=1}^n a_i X_i, \sum_{j=1}^m b_j Y_j)$ ). It is not permitted to write sentences or text explanations on this help sheet.

Expect the exam to be cumulative with an emphasis on material from the second half of the semester. Pay particular attention to finding the probability distribution of a function of a random variable (chapter 6) including sampling distributions (chapter 7); calculating bivariate probabilities including marginal probability/density functions, independence, covariance, and conditional expectations (chapter 5); and recognizing and using the basic types of random variables (chapters 3 and 4 and multinomial). Tschebychev's theorem, the empirical rule and Bayes' Rule will also be on the exam.

You might expect questions that ask about which type of random variable to choose as a model for a particular experiment or how to set up integrals that compute certain probabilities.

Enjoy the holiday and sign up for MATH 408!