

**STUDY GUIDE FOR FINAL EXAMINATION**  
**MATH 1401**

The Final Examination will consist of 22 multiple-choice questions worth 5 points each. The total number of points on the exam is 110. Thus, you have a “built-in” 10-point bonus. ***The test will be open notes.***

<b>Question No.</b>	<b>Objective(s)</b>
1	Find the mean, median, and mode of a set of sample data. [Section 3-1, pp. 92-94, #5-24]
2	Determine the sampling method used in collecting data. [Section 1-3, pp. 32-33, #9-20]
3	Determine if data is quantitative or categorical. Determine if quantitative data is continuous or discrete, Determine the level of measurement of data. [Section 1-2, pp. 23-24, #13-28]
4	Apply the Range Rule of Thumb. [Section 3-2, p. 110, #29-36]
5	Calculate basic probabilities. [Section 4-1, pp. 144-146, #21-40]
6	Determine whether a procedure results in a binomial distribution. [Section 5-2, p. 209, #5-12]
7	Determine the probability of an event using the binomial probability distribution. [Section 5-2, pp. 210-212, # 15-36]
8	Determine the probability of an event from a population that is normally distributed. [Section 6-2, pp. 251-253, #13-16, 21(a), 22(a), 23(a), 24 (a) 25(a), 26(b), 27, 28(a), 29(a), 30(a), 31(a), 32(a)]
9	Apply the Central Limit Theorem. [Section 6-4, pp. 272-275, #5-20]
10-12	Find the critical value used in finding the margin of error. Determine the margin of error. Determine the confidence interval. [Section 7-1, pp. 311-314, #5-8, 13-28; Section 7-2, pp. 328-330, #6-24]

13	Determine the sample size needed to estimate a population parameter. [Section 7-1, pp. 314-315, #31-38; Section 7-2, pp. 331-332, # 29-36]
14	Identify a Type I and Type II error corresponding to a given hypothesis. [Section 8-1, p. 373, #29-32]
15-18	Perform a hypothesis test. (The questions will step you through one hypothesis test. It will either be a proportion or a mean.) [Section 8-2, pp. 383-386, #9-32; Section 8-3, pp. 396-398, #9-24, 29-30]
19-20	Calculate the value of the linear correlation coefficient. Determine if there is a significant linear correlation. [Section 10-1, pp. 474-479, #5-10, 13-28]
21-22	Find the regression equation given a set of data. Find the indicated predicted value using the prediction procedure described in Section 10-2. [Section 10-2, pp. 490-493, #5-8, 13-28]