## Study Guide for TEST IV <br> MATH 1401

Test IV will consist of 15 multiple-choice questions worth 7 points each. The total number of points on the test is 105. Thus, you have a "built-in" 5-point bonus. The test will be open notes.

| Question No. | Objective(s) |
| :--- | :--- |
| 1 | State the null hypothesis and alternative hypothesis used in testing a claim. <br> [Section 8-1, p. 371, \#5-8] |
| 2 | Determine the critical $z$ scores used in testing a claim. <br> [Section 8-1, p. 372, \#21-23] |
| 3 | State the final conclusion of in a hypothesis test. <br> [Section 8-1, p. 372, \#9-11] |
| $4-5$ | Find the value of the test statistic. <br> [Section 8-1, p. 372, \#13-16] |
| 6 | Calculate a P-value. <br> [Section 8-1, p. 372, \#17-20] |
| $7-12$ | Perform a hypothesis test. (The questions will step you through one <br> hypothesis test. It will either be a proportion, a mean, or a <br> variance/standard deviation.) <br> [Section 8-2, pp. 283-386, \#9-32; <br> Section 8-3, pp. 396-398, \#9-24; <br> Review Exercises, p. 409, \#2-6] |
| 13 | Determine if there is a significant linear correlation using the Critical <br> Values of the Pearson Correlation Coefficient Table (it is either A-5 or A-6 <br> depending on your formula card). <br> [Section 10-1, pp. 475-479, \#5-10, 13-28; <br> Review Exercises pp. 503-504, \#1(a), 2(b)] |
| $14-15$ | Find the regression equation given a set of data. <br> Find the indicated predicted value using the prediction procedure <br> described in Section 10-2. <br> [Section 10-2, pp. 490-493, \#5-8, 13-28; <br> Review Exercises pp. 503-504, \#1(c)-(d), 2(c)-(d)] |

