Not To Be Taken Out
Reserve Reading Room

Time: 1 hr.

May 9, 2000

Form 1

MATH 207
Second Semester, 99-00
Quiz II

Instruction: Please indicate the number of the form you are answering on the upper left hand corner of the front cover of the answer booklet.

1. Assume that a set of 200 scores is normally distributed, with a mean of 60 and a standard deviation of 12.

(a). How many scores lie between the values of 48 and 80? 65 and 75?

(b). How many scores exceed the values of 80? 40?

(c). Find the third quartile (75^{th} percentile) of the scores.

2. In a certain college, the average number of years in which students earn a bachelor's degree is 4.3 years with as standard deviation of 0.5 years and the numbers are normall distributed. What is the percentage of students at this college who finish a bachelor's degree program in 3.5 years or less?

3. The SAT scores of entering freshman students at a certain university have a mean of 455 and a standard deviation of 100.

(a). Determine the mean and standard deviation for the distribution of the means all samples of size 144 scores.

(b). For a randomly selected sample of 144 freshman students, determine the probability that the mean of their SAT scores is within 10 points of the population mean

4.Over the past ten years, a high school Spanish teacher has been giving the same final exam to all students in first-year Spanish. The mean on this exam is 78.4 and the standa deviation is 14.8.To pass this course a student must score at least 55. To be placed in th honors section, a student must score at least 99. Assuming the grades are normally distributed, determine the following probabilities.

(a). probability that the student will pass the course.

(b). probability that the student will be placed in the honors section.

Grade distribution: 35%-15%- 25%- 25%