	Percentiles	Smallest		
1%	19	13		
5%	26	19		
10%	29	21	Obs	148
25%	38.5	23	Sum of Wgt.	148
50%	50		Mean	49.39189
		Largest	Std. Dev.	14.38519
75%	60	73		
90%	68	74	Variance	206.9338
95%	73	74	Skewness	1794244
99%	74	75	Kurtosis	2.160705



There were 3 forms. There were no meaningful differences in the average scores between forms. On this test, these are approximate, conservative breakdowns since discussions of exact grades are meaningless at this time:

59 or higher probably an "A/A-" grade there were 43 39-58 probably a "B+/B/B-" grade there were 68 23-38 probably a "C+/C" grade there were 34 below 23 is not passing at this time,

If you plan to contest your examination grade, please read the instructions found in the syllabus. You have until 4pm on October 30, 2004 to submit a challenge in writing. E-mail is considered "in writing". Please remember that responses on your answer sheet, which I keep, are considered the final answers for a problem if an answer sheet response was required. If there are differences between what you marked on your exam and what you submitted on the answer sheet, it is understood to be your copying mistake.

Lew

Your Teaching Assistants have been asked to go over the exam with you. Answer keys will be posted as soon as possible. For now, here are some places where the questions were drawn:

1. Boxplot problem: see review problems 14 & 15

2. Normal Curve Problem

Part A: is like review question 8(a) except that the value is below average so you needed to (1- area under the curve) to get the area in question.

part B: is harder, but the practice for it was review question 2(b) to calculate a 25th percentile. A 75th percentile is just the opposite (that is, a value on the upper half of the curve). So if you used .67 on one, you need to use .67 on the other, else, it is asymmetric and will not total 100% or 1.0 or the curve. A problem that is close to it is #27 part b in homework #2, instead of 80%, change it to 50% and you have that question on the exam.

The C part is the "A student" question, it's basically part of Lecture 6 (the first example), but made somewhat tougher . The problem that is like it is on Page 112, #37, an optional problem for practice on homework #2's handout.

3. On the form I am looking at

a. P(at least 2) = P(3) + P(2) when selecting 3 residents at random.

This is like problems 13 & 19 in Chapter 14 (suggested review or homework 3) or a lot like Problem 20B in the review material. One needs to find the probability of getting all 3 or (implies addition) getting the probability of just two out of 3.

b. The probability that none of 3.... some probability raised to the 3rd power. See Chapter 14, problems 13.B.3, 14.B.2, and 17C and 22B

c. the first ... selected is the third resident? See Chapter 14, problems 13.B.2, 19B,

d. basically it's asking you about independence. Review the law of large numbers on page 271, last two paragraphs and top of page 272... no matter how many "heads" you already have, the next "flip" is still 50-50.

4. Sample/Parameter problem -- the first four are Chapter 12 and review problems 5 & 7

a. There was a population of interest (either elderly or babies but not both)

b. There was a sample of interest (a specific size, e.g. 700 elderly or 300 elderly controls, 400 elderly treatment) Not the entire sample was interesting.

c. There is a statistic of interest -- comes from the sample and it was either stated as a difference between treatment and control or a specific outcome of the treatment.

d. Parameter -- the corresponding value in the population. So perhaps the percentage of elderly who didn't get sick if they got the treatment or the difference among all elderly who get the treatment vs those who do not.

e. The assigned grade was an ordinal variable because it was ordered on the basis of risk of flu (i.e. elderly & babies are HIGH, then the others). See Chapter 3, page 9.

f. See Chapter 13. This was a randomized controlled experiment, basically the researchers could assign treatment (vaccine) at random and there was the presence of a control group.