

Statistics 2215  
Test I  
Spring 2004  
Dr. Olsh

Name \_\_\_\_\_

**Part II**  
**(SHOW all of your work; set up, calculations, etc.)**

1. A sample of 80 company employees is grouped into a table based on their weekly salaries:

<b>Salary</b>	<b>Frequency</b>
100.00 – 149.99	15
150.00 – 199.99	10
200.00 – 249.99	30
250.00 – 299.99	25

a) find the mean

b) find the median

c) find  $D_3$  (third decile)

2. A histogram of weight gains for pigs prepared for market at the Pigs-R-Us feed lot shows a symmetric distribution. The mean and standard deviation for these weight gains (in pounds) is 15 and 3, respectively. I put my 1000 pigs into this feed lot, between what two values would

a) at least 96% of my pig weight gain be?

b) noting the symmetric distribution, give an answer not using at least.

3. As you know the histogram of weight gains for pigs prepared for market at the Pigs-R-Us feed lot shows a symmetric distribution. The mean and standard deviation for these weight gains (in pounds) is 15 and 3, respectively. Passion-for-Pigs, a competitor of Pigs-R-Us, says that its mean weight gain is 18. A study shows that the weight gains at Passion-for-Pigs have a standard deviation of 5. Which feed lot is more consistent in its weight gain for our porkers?

4. Consider the following sample:

3, 3, 101, 0, -2, 4, 6

a) find the mean

b) find the median

c) find  $Q_1$

d) find the standard deviation

e) find the variance

5. In the Eastern Ohio softball association league there are 10 teams. Although only 2 teams play in the champion series, the receipts from the series are distributed among the 5 teams with the best records for the season. The team winning the championship gets paid the most. The team losing in the championship game gets paid the second largest amount. The other 3 teams are paid decreasing amounts according to their final standing. How many different ways are there for the money to be distributed among the teams?

Please sign the following: I have neither given nor received unauthorized help on this piece of work, nor have I tolerated any infraction of the honor code.

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