

Time: 1 hr.

MATH207  
Second Semester, 00-01  
QUIZ I

March 17, 01

1. The Pacific region of the United States consists of five states: Washington (W), Oregon (O), California(C), Alaska(A), and Hawaii(H).
  - a) List the 10 possible samples without replacement, of size three, that can be obtained from the five Pacific states.
  - b) If a simple random sampling procedure is used to obtain a sample of 3 Pacific states, what is the probability that Hawaii belong to that sample? Show your work.

3. The grades in a psychology test were as follows:

97 76 93 86 80 89 95  
77 76 63 74 94 96 77  
65 79 60 56 72 82 70  
67 79 71 73 72 93 77  
72 88 70 71 74 93 77

- a) Use classes of equal width, starting with the class  $50 < 60$ , to construct a grouped data table. Include frequencies, relative frequencies, and midpoints.
- b) Draw a histogram to represent the grades given.

3. Given the data sets:

Data Set 1: 7 10 12 14 18 20  
Data Set 2: 1 10 12 14 18 20  
Data Set 3: 7 10 12 14 18 26

- a) Find the mean and median for each data set.
- b) The mean of Data Set 2 differs from the mean of Data Set 1. How? Why?
- c) The mean of Data Set 3 differs from the mean of Data Set 1. How? Why?

4. A sample of 12 telephone calls yielded the following durations to the nearest minutes:

7 3 1 4 5 11  
12 18 15 2 15 10

- a) Find the mode, mean, and the range of the phone calls.
- b) Find the sample standard deviation.

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5. Twenty small investors lost money in stocks last week. The amounts they lost( in hundreds of dollars) were:

10 13 22 26 16  
41 35 24 23 27  
52 31 17 20 33  
26 46 30 19 22

- a) Find the interquartile range (IQR) of these amounts.
- b) Find their five- number-summary.

**Not To Be Taken Out  
Reserve Reading Room**