

**Psychology 445L
Spring 2008**

Homework #1

Name: _____

Date: _____

Although most real-life statistics problems are solved using computer programs, please do these problems by hand as one method to ingrain the method in your mind. In all problems involving any figuring, please show your work.

1. Fifty students were asked how many hours they had studied this weekend. Here are their answers:

11, 2, 0, 13, 5, 7, 1, 8, 12, 11, 7, 8, 9, 10, 7, 4, 6, 10, 4, 7, 8, 6, 7, 10, 7, 3, 11, 18, 2, 9, 7, 3, 8, 7, 13, 9, 8, 7, 7, 10, 4, 15, 3, 5, 6, 9, 7, 10, 6, 2

Make (a) a frequency table, (b) a histogram, and (c) a frequency polygon. Then, (d) describe the general shape of the distribution.

2. For the following set of scores: 32, 28, 24, 28, 28, 31, 35, 29, 26

Find the

- (a) mean
- (b) median
- (c) sum of squared deviations,
- (d) variance
- (e) standard deviation

3. On particular intelligence tests, the mean number of items correct is 231, and the standard deviation is 41. IQ is figured as “ $100 + (Z \text{ score} * 16)$ ”. To do this problem, first figure the Z score for the particular test scores listed below. Next, use that Z score to find the IQ. What are the IQs for people with the following test scores?

- (a) 107
- (b) 83
- (c) 100

4. Six months after a divorce, the former wife and husband each take a test that measures divorce adjustment. Higher scores indicate better adjustment. The wife’s score is 63, and the husband’s score is 59. Overall, the mean score for divorced women on this test is 60 (SD=6) and the mean score for divorced men is 55 (SD=4). Which of the two has adjusted better to the divorce in relation to other divorced people of the same gender? Design your answer for someone who has no understanding of statistics.