

**Quiz 2 (Group) for Statistics 113**  
**Statistics and Society–Fall 2000**  
**Material Covered: Chapters 5,6 of Workbook and text**  
**For: Wednesday, 20th September**

Name 1 (please print): \_\_\_\_\_  
last first

Name 2 (please print): \_\_\_\_\_  
last first

Name 3 (please print): \_\_\_\_\_  
last first

Name 4 (please print): \_\_\_\_\_  
last first

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The following list of test scores has an average of 50 and a SD of 10.7:

28, 36, 37, 37, 39, 41, 44, 47, 47, 48, 49  
52, 52, 53, 54, 56, 58, 59, 62, 64, 65, 72

- (a) [1] The test score two and one half SDs above the average is  
(circle closest one) **72.75 / 73.25 / 74.75 / 75.50 / 76.75** points.
- (b) [1] If a test score is 15 points less than the average, how many SD units is this  
below the  
average? \_\_\_\_\_.
- (c) [1] Use the normal approximation to estimate the number of scores within 1.25  
SDs of the average. (circle closest one) **13 / 14 / 15 / 16 / 17**
- (d) [1] How many scores really were within 1.25 SDs of the average?  
(circle closest one) **13 / 14 / 15 / 16 / 17**
- (e) [1] The 65th percentile  
is \_\_\_\_\_.

- (a) **76.75.** ( $50 + 2.5(10.7) \approx 76.75$ .)
- (b) 1.40. ( $\frac{15}{10.7} \approx 1.409$ )
- (c) **17.** (using table, 78.87% within 1.25 SDs and so  $0.7887(22) \approx 17.35$ )
- (d) **17.** ( $50 \pm 1.25(10.7) \approx (36.625, 63.375)$ , and 17 scores in this interval)
- (e) 54.28. (65th percentile implies 30% in tables, which is 0.40 and so  $50 + 0.40(10.7) \approx 54.28$ .)