

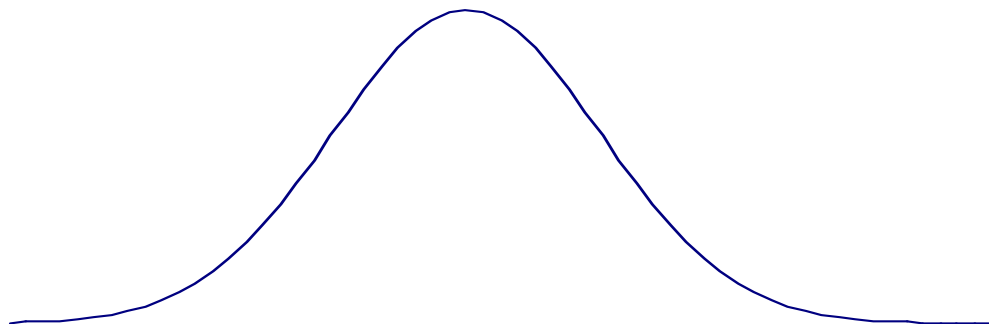
Homework #6: Calculations You Should Master

NOTE: I have shown some of the answers but not the computations. I need to see your computations for you to get credit for these problems.

1. A psychology professor gave a test and got the following scores.

| A | B | C | D | E | F | G | H | I | J |
|----|----|---|----|---|----|----|---|---|---|
| 12 | 12 | 7 | 10 | 9 | 12 | 13 | 8 | 9 | 8 |

- What is the mean for this distribution? 10.00
- What is the standard deviation for this distribution? 2.00
- The z score for person D is? .00. Show where this score is on this normal curve.
- The z score for person E is? -.50 Show where this score is on this normal curve.
- The z score for person G is? _____ Show where this score is on this normal curve.



2. Use the scores for item 1 for the following questions. SHOW YOUR CALCULATIONS!

a. What is the raw score for a z score of 0.00? 10.00

b. What is the raw score for a z score of + 1.58? 13.16

c. The raw score for a z score of -1.96 is?

3. Given a population with $\mu = 80.00$ and σ of 7.5, answer the following questions.

TO DO THESE YOU SHOULD DRAW THE PICTURE!

a. What percentage of people score less than a z score of -1.00? 15.87%

b. What percentage of people score 78 or less? (Z = -.267); 39.36 percentile

c. What percentage of people score 86 or less? (Z=.80; 78.81 percentile

d. What percentage of people score more than 97.47?

e. What percentage of people score at or above $z = +1.96$ **and** at or below $z = -1.96$. 5%

f. What percentile is a raw score of 100?