A firm wants to establish how long it is supposed to take to assemble a certain product. A random sample of 13 employees is selected and the company measures how long it takes each of them to assemble the product rounded to the nearest minute.

Data: 16; 8; 11; 9; 14; 22; 20; 16; 30; 25; 19; 16; 15

Solve the following by hand.

1. The mean is: _______
2. The median is: _____
3. The mode is: ______
4. The first quartile is: ____
5. The third quartile is: ____
6. The range is: ______
7. The IQR is: ______
8. The variance is: ______
9. The standard deviation is: ______
10. The coefficient of variation is: ______
11. Convert the 8 into a Z-score: _______
12. Convert the 30 into a Z-Score ______
13. Solve the above using MS Excel.

Part II. Also, try these multiple-choice questions about some of these basic concepts:

1. Which of the following is not a measure of location? (a) mean   (b) median   (c) variance   (d) percentile   (e) quartile
2. Which of the following statements is false? (a) the median is a measure of central tendency (b) quartiles are not measures of central tendency (c) the 50\(^{th}\) percentile is the median (d) an extreme value is likely to have a greater effect on the median than the mean (e) the 25\(^{th}\) percentile is the first quartile (Q1)