Module 3 practice questions

Question 19

The accounting firm of Rowatti and Koppel specializes in income tax returns for self-employed professionals, such as physicians, dentists, architects, and lawyers. The firm employs 11 accountants who prepare the returns. For last year, the number of returns prepared by each accountant was:

58,75,31,58,46,65,60,71,45,58,80

Find the mean, median, and mode for the number of returns prepared by each accountant. If you could report only one, which measure of location would you recommend reporting?

Mean = 58.8

Median = 58

Mode = 58

I would report only the mean.

Question 25

The Loris Healthcare System employs 200 persons on the nursing staff. Fifty are nurse's aides, 50 are practical nurses, and 100 are registered nurses. Nurse's aides receive $12 an hour, practical nurses $20 an hour, and registered nurses $29 an hour. What is the weighted mean hourly wage?

(50*12+50*20+100*29)/ (50+50+100) =

22.50

Question 27

Compute the geometric mean of the following monthly percent increases: 8, 12, 14, 26, and 5.

11.18 monthly increase

question 37

Dave's Automatic Door installs automatic garage door openers. The following list indicates the number of minutes needed to install 10 door openers: 28, 32, 24, 46, 44, 40, 54, 38, 32, and 42.

Calculate the following:

   a. Range= 30

   b. Mean= 38

   c. Variance= 74.4

Question 45

Plywood Inc. reported these returns on stockholder equity for the past 5 years: 4.3, 4.9, 7.2, 6.7, and 11.6. Consider these as population values.

Compute the following:

a. Range= 7.3

b. Arithmetic mean=6.94

c. Variance=6.59

d. Standard deviation=2.56

Question 49

Dave's Automatic Door installs automatic garage door openers. Based on a sample, following are the times, in minutes, required to install 10 door openers: 28, 32, 24, 46, 44, 40, 54, 38, 32, and 42.

a. Compute the sample variance. 82.6

b. Determine the sample standard deviation. 9.09

744/9

Question 56

The Empirical Rule states that the approximate percentage of measurements in a data set (providing that the data set has a bell shaped distribution) that fall within two standard deviations of their mean is approximately:

a.   68%

b.   75%

c.   95%

d.   99%

question 57

According to the Empirical Rule, if the data form a bell shaped normal distribution approximately _____ percent of the observations will be contained within 1 standard deviation around the mean.:

a.   68%

b.   75%

c.	95%
d.	99%

question 58

According to the Empirical Rule, if the data form a bell shaped normal distribution approximately _____ percent of the observations will be contained within 3 standard deviation around the mean.:

a.	68%
b.	75%
c.	95%
d.	99%