STA2023
Broward College
Find the mean for the given sample data. Unless indicated otherwise, round your answer to one more decimal place than is present in the original data values.

1) The students in Hugh Logan's math class took the Scholastic Aptitude Test. Their math scores are shown below. Find the mean score.

    588 563 357 341 526
    344 346 644 470 482

    A) 466.1   B) 457.0   C) 475.6   D) 476.0

1) _____

Find the median for the given sample data.

2) The temperatures (in degrees Fahrenheit) in 7 different cities on New Year's Day are listed below.

    17 22 39 58 67 69 85
Find the median temperature.

    A) 51°F   B) 58°F   C) 67°F   D) 39°F

2) _____

3) The ages (in years) of the eight passengers on a bus are listed below.

    6 1 26 15 23 40 32 32
Find the median age.

    A) 24.5 yr   B) 23 yr   C) 26 yr   D) 21.5 yr

3) _____

Find the mode(s) for the given sample data.

4) 20 36 46 36 49 36 49

    A) 49   B) 38.9   C) 36   D) 46

4) _____

Find the midrange for the given sample data.

5) 49 52 52 52 74 67 55 55

    A) 53.5   B) 12.5   C) 25   D) 61.5

5) _____

Find the mean of the data summarized in the given frequency distribution.

6) The test scores of 40 students are summarized in the frequency distribution below. Find the mean score.

Score	Students
50–59	6
60–69	5
70–79	6
80–89	11
90–99	12

    A) 79.0   B) 75.1   C) 74.5   D) 71.1

6) _____

Find the range for the given sample data.

7) Rich Borne teaches Chemistry 101. Last week he gave his students a quiz. Their scores are listed below.

    26 31 47 29 37 20 43 41 50 55 37 22
    A) 11   B) 55   C) 20   D) 35

7) _____

Find the variance for the given data. Round your answer to one more decimal place than the original data.

8) 19 5 20 6 2   8) _____
      A) 93.8   B) 71.3   C) 71.2   D) 57.0

Find the standard deviation for the given sample data. Round your answer to one more decimal place than is present in the original data.

9) 18 18 14 11 8 8 10 17 12   9) _____
      A) 4.0   B) 4.3   C) 3.8   D) 1.6

Find the coefficient of variation for each of the two sets of data, then compare the variation. Round results to one decimal place.

10) Listed below are the systolic blood pressures (in mm Hg) for a sample of men aged 20-29 and for a sample of men aged 60-69.

     Men aged 20-29: 117 125 133 118 131 123
     Men aged 60-69: 130 151 138 125 164 139

Find the standard deviation of the data summarized in the given frequency distribution.

11) The test scores of 40 students are summarized in the frequency distribution below. Find the standard deviation.   11) _____

Score	Students
50-59	6
60-69	6
70-79	5
80-89	6
90-99	17

   A) 13.9   B) 14.6   C) 16.2   D) 15.4

Use the empirical rule to solve the problem.

12) The systolic blood pressure of 18-year-old women is normally distributed with a mean of 120 mmHg and a standard deviation of 12 mmHg. What percentage of 18-year-old women have a systolic blood pressure between 96 mmHg and 144 mmHg?   12) _____
      A) 95%   B) 68%   C) 99.7%   D) 99.99%

13) At one college, GPA's are normally distributed with a mean of 3.1 and a standard deviation of 0.6. What percentage of students at the college have a GPA between 2.5 and 3.7?   13) _____
      A) 84.13%   B) 95%   C) 68%   D) 99.7%

Find the number of standard deviations from the mean. Round your answer to two decimal places.

14) Mario's weekly poker winnings have a mean of $323 and a standard deviation of $50. Last week he won $177. How many standard deviations from the mean is that?   14) _____
      A) 2.92 standard deviations above the mean   B) 2.92 standard deviations below the mean
      C) 1.46 standard deviations above the mean   D) 1.46 standard deviations below the mean

Find the percentile for the data value.

15) Data set: 51 34 47 67 66 62 36;
    data value: 51   15) _____
      A) 57   B) 43   C) 50   D) 20

Find the indicated measure.

16) Use the given sample data to find Q_3.   16) _____

   49 52 52 52 74 67 55 55

   A) 55.0   B) 67.0   C) 61.0   D) 6.0

Construct a boxplot for the given data. Include values of the 5-number summary in all boxplots.

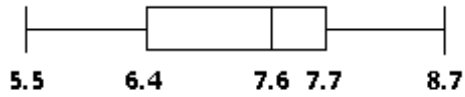17) The weights (in pounds) of 30 newborn babies are listed below. Construct a boxplot for the data set.   17) _____

   5.5 5.7 5.8 5.9 6.1 6.1 6.3 6.4 6.5 6.6
   6.7 6.7 6.7 6.9 7.0 7.0 7.0 7.1 7.2 7.2
   7.4 7.5 7.7 7.7 7.8 8.0 8.1 8.1 8.3 8.7

   A)

      5.5   6.4   7.6 7.7   8.7

   B)

      5.5   6.4   7.0   7.7   8.7

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