

Verse:

Name:

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Statistics Quiz #9
(9.8)

Calculator okay

Find the mean for the given sample data.

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

1) _____

506 635 345 344 633
344 359 536 470 482

For #2 & 3, obtain the population standard deviation, σ , and variance for the given data. Assume that the data represent population data. Round your final answer to three decimal places.

- 2) The test scores of 8 students are listed below.

42 75 55
82 93 58
53 47

- 3) The number of years of teaching experience is given below for 10 high-school teachers.

17 15 24 21 12
17 8 5 13 22

- 4) Show your work.

The grades on a test are normally distributed with a mean of 75 and a standard deviation of 8.

- a) Find the grade that is 2.5 standard deviations below the mean.

- b) Find the z-score for the grade found in part (a).

Show your work

- 5) According to the American Freshman, the number of hours that college freshmen spend studying each week is normally distributed with a mean of 7 hours and a standard deviation of 5.3 hours. Use the ___ - ___ - ___ % Rule to find the percentage of college freshmen who study between 7 and 17.6 hours each week.

MULTIPLE CHOICE.

Provide an appropriate response. Use the Standard Normal Table to find the probability.

- 6) IQ test scores are normally distributed with a mean of 100 and a standard deviation of 15. An individual's IQ score is found to be 110. Find the z-score corresponding to this value. 6) _____
A) -1.33 B) -0.67 C) 1.33 D) 0.67

- 7) IQ test scores are normally distributed with a mean of 100 and a standard deviation of 15. An individual's IQ score is found to be 120. Find the z-score corresponding to this value. 7) _____
A) -1.33 B) 1.33 C) 0.67 D) -0.67

Provide an appropriate response.

- 8) IQ test scores are normally distributed with a mean of 100 and a standard deviation of 15. Find the x-score that corresponds to a z-score of 2.33. 8) _____
A) 142.35 B) 139.55 C) 125.95 D) 134.95

- 9) IQ test scores are normally distributed with a mean of 100 and a standard deviation of 15. Find the x-score that corresponds to a z-score of -1.645. 9) _____
A) 82.3 B) 91.0 C) 75.3 D) 79.1