

# NallPro® Education Centre

**COMPUTER Training & MATH Tuition**

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Standard Deviation - 02

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Name: \_\_\_\_\_

## Show all your details work on separate sheet(s) (8½ x 11):

1. A secretary types 10 business letters for her supervisor. The number of typing errors per letter was 4, 2, 0, 3, 8, 2, 6, 1, 9, and 0. Find the standard deviation and range for the numbers.
2. The ages of the members of a math department are 31, 28, 44, 39, 52, 39, 58, and 29 years. Calculate the standard deviation for the ages.
3. Trudy loves to speak on the telephone. Last night she made 6 calls which lasted 44, 11, 32, 27, 48, and 18 minutes. Find the mean and standard deviation for the length of a telephone call.
4. Each year many television stations conduct fund raising drives through telethons for various charities. For the past 5 years one television station kept records on the time that passed before the first \$ 10,000 was pledged. This information follows:

Year	Minutes Passed Before First \$10,000 was Pledged
1972	19
1973	12
1974	10
1975	19
1976	5

Find the mean and standard deviation for the numbers

5. The number of minutes that a commuter waited for her train during one week was 10, 6, 15, 11, and 3. Calculate the mean & standard deviation.
6. Multiply each number in exercise #7 by 3 and then compute the mean and standard deviation for the new distribution. How do the results compare with those of the preceding exercise? Can you generalize?
7. A comparison shopper has compared the prices of a pound of ground beef at a number of different supermarkets. The following prices, in cents, were obtained: 89, 93, 74, 63, and 101.
  - a) Calculate the mean and standard deviation of each price
  - b) Calculate the mean and standard deviation by subtracting 25 cents from each price.
  - c) Calculate the mean and standard deviation by subtracting 80 cents from each price.
  - d) How are the mean and standard deviation affected if we subtract different numbers from each price?
8. The average cost of malpractice medical insurance last year in a certain city was \$2300 for a neurosurgeon, with a standard deviation of \$450. This year, rates will be increased by \$600. What will the new mean and standard deviation be?
9. Last year Sam bought 5 tires, which lasted 17,010, 16,080, 17,050, 16,090, and 17,000 miles. Find the standard deviation for the life of the tires.