

14 . 3 Measures of Dispersion

M. Goodroe - Quantitative Skills and Reasoning

Key Terms:

- Range
- Deviation from the Mean
- Standard Deviation
- Variance
- Coefficient of Variation

Name: _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Find the range for the set of data given.

- 1) 24 34 17 50 59
- 2) 2.8 5.1 1.4 4.1 6.1 3.1
- 3) 0.139 0.12 0.513 0.384 0.635 0.301

Find the standard deviation. Round to one more place than the data.

- 4) 79, 51, 39, 28, 74, 88, 47, 28, 27
- 5) 13, 19, 5, 6, 7, 14, 7, 16, 5, 16
- 6) 18, 15, 19, 15, 7, 13, 8, 17, 19

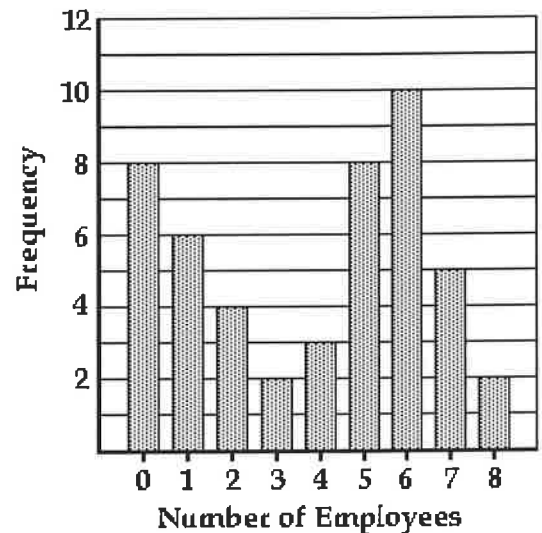
Find the mean and standard deviation of the given data. Round to the nearest tenth, if necessary.

- 7) The following are the scores of 20 students who took a calculus exam:

Score	76	82	85	90	92	95
Frequency	5	2	3	4	3	3

- 8) The following are the heights, in inches, of a group of college students:
72, 68, 62, 64, 66, 74, 70, 60, 63, 67, 69, 67

- 9) The office manager at an accounting firm counted the number of employees that were in the coffee room each hour during the work week. The results are summarized in the following bar graph. Find the mean and SD.



Solve the problem. Round to the nearest hundredth, if necessary.

- 10) The table below gives the annual incomes, in thousands of dollars, for eight families. Find the number of standard deviations B's income is from the mean.

Family	A	B	C	D	E	F	G	H
Annual Income	35	47	62	51	48	72	48	50

- 11) Suppose for a given month that the mean daily closing price (all numbers in dollars) for Expensive, Inc. common stock was 122.6 with a standard deviation of 15.9. For Cheap, Inc. stock, the mean daily closing price was 61.8 with a standard deviation of 6.2. Which stock was more volatile (i.e., had a greater coefficient of variation)?

- 12) Assume that the following table gives the price (in dollars) of a loaf of bread and a gallon of milk over the first six months of the year. Use the coefficient of variation to determine if bread prices or milk prices were more stable over that time period.

	Bread	Milk
Jan	2.42	1.55
Feb	2.49	1.66
Mar	2.55	1.78
Apr	2.72	1.78
May	2.66	1.65
Jun	2.60	1.65