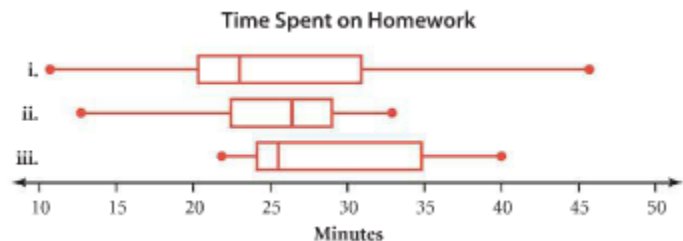


For each data set, give the mean and the standard deviation. Include appropriate units.

- The heights, in inches, of eight children are 32, 45, 39, 51, 28, 54, 37 and 42 .
- The lengths, in centimeters, of six pencils are 8.5, 19, 11.8, 13.2, 16.4 and 6.1 .
- The prices of seven music CDs are \$13.50, \$10.95, \$9.95, \$16.00, \$12.50, \$15.95 and \$17.75 .
- Students collected eight length measurements for a mathematics lab. The mean measurement was 46.3cm, and the deviations of seven individual measurements were 0.8cm, -0.4 cm, 1.6cm, 1.1cm, -1.2 cm, -0.3 cm, and -1.0cm.
 - What were the original eight measurements collected?
 - Find the standard deviation of the original measurements.
 - Which measurements are more than one standard deviation above or below the mean?

5. While you can't actually find the mean and standard deviation from a box plot, you can match these by estimation and elimination.

- mean = 28 , standard deviation = 6
- mean = 25 , standard deviation = 10
- mean = 25 , standard deviation = 6



6. The mean diameter of a Purdy Goode Compact Disc is 12.0cm, with a standard deviation of 0.012cm. No CDs can be shipped that are more than two standard deviations from the mean. How would the company's quality control engineer use those statistics?

7. Two groups do a rubber band launch experiment seven times.

Group A distance (cm): 182, 186, 182, 184, 185, 184, 185

Group B distance (cm): 52, 94, 66, 116, 100, 76, 84

- What is the mean for each group?
- What is the standard deviation for each group?
- Based on your answers for a. and b., compare the results of the two groups.

8. The students in four classes recorded their resting pulse rates in beats per minute. The class means and standard deviations are given in the table.

- Which class has students with pulse rates more alike?
How can you tell?
- Can you tell which class has the students with the fastest pulse rates? Why or why not?

Class	Mean	St. Dev.
1 st period	79.4	3.2
3 rd period	74.6	5.6
5 th period	78.2	4.1
6 th period	80.2	7.6