

pg 5 #a, b, c

$$\bar{X} = 18 \quad S_x = 11.49$$

$$\bar{X} = 421 \quad S_x = 208.87$$

1a.

x	\bar{x}	deviation from \bar{x}
12.4	18	-5.6
26.3	18	8.3
9.8	18	-8.2
53.7	18	15.9
7.6	18	-10.4

1b.

x	\bar{x}	$x - \bar{x}$
235	421	-186
413	421	-8
505	421	84
111	421	-310
700	421	279
626	421	205
357	421	-64

$$\bar{X} = 2.1 \quad S_x = 1.66$$

1c.

x	\bar{x}	$x - \bar{x}$
0.5	2.1	-1.6
2.6	2.1	0.5
1.8	2.1	-0.3
4.7	2.1	2.6
0.9	2.1	-1.2

1) For each data set, find the mean, the deviation from the mean **for each value**, and the standard deviation of the data set. (Round to one decimal place.)

a) {12.4, 26.3, 9.8, 33.9, 7.6}

$\bar{x} = 18 \quad s_x = 11.49$

b) {235, 413, 505, 111, 700, 626, 357}

$\bar{x} = 421 \quad s_x = 208.87$

c) {0.5, 2.6, 1.8, 4.7, 0.9}

$\bar{x} = 2.1 \quad s_x = 1.66$

2) For each data set, calculate the mean and standard deviation. Include appropriate units in your answers.

a) The heights, in inches, of eight children are 32, 45, 39, 51, 28, 54, 37, and 42.

$\bar{x} = 41 \text{ in} \quad s_x = 8.91 \text{ in}$

b) The lengths, in centimeters, of six pencils are 8.5, 19.0, 11.8, 13.2, 16.4, and 6.1.

$\bar{x} = 12.5 \text{ cm} \quad s_x = 4.8 \text{ cm}$

c) The prices of seven music CDs are \$13.50, \$10.95, \$9.95, \$16.00, \$12.50, \$15.95, and \$17.75.

$\bar{x} = \$13.80 \quad s_x = \2.88

3) For each data set, find the median, the range, and the IQR.

a) {18, 13, 15, 24, 20}

Med: 18 Range: $24 - 13 = 11$

IQR: $22 - 14 = 8$

b) {4, 9, 7, 6, 0, 11, 7}

Med: 7 Range: $11 - 0 = 11$

IQR: $9 - 4 = 5$

c) {356, 211, 867, 779, 101, 543}

Med: 449.5 Range: $867 - 101 = 766$

IQR: $779 - 211 = 568$