PC Sec 1-6 p. 50 (1, 2, 5-14, 18)

(1) a) center b) spread c) spread
d) spread e) spread f) center

(2) D

(5) $SD = \sqrt{\text{VARIANCE}}$ $(4.5)^2 = (\sqrt{\text{VARIANCE}})^2$ VARIANCE = 20.25

(6) $\bar{x} = 117$ $s_x = 13.64$

(7) $\bar{x} = 118$ $s_x = 5.29$

(8) Greater than because you divide by a smaller number "n-1", vs. dividing by "n" for population.

(9) B + D are population

(10) a) miles b) miles c) miles^2 d) miles

(11) Variance is always positive.

(12) $s_1 < s_2 \rightarrow$ more variability in s_2 due to bigger standard deviation.

(13) a) $SD = \sqrt{VAR}$ $(7.8)^2 = (\sqrt{VAR})^2$ VAR = 60.84 kg^2

b) $SD = \sqrt{VAR}$ $SD = \sqrt{19} =$ 4.36 kg

(14) a) i = Group Z ii = Group Y iii = Group X

b) Group Y: GREATEST Group Z: SMALLEST

c)

Group Y	Group Z	Group X
SD: 6.80	SD: 5.21	SD: 6.48

(18) A: has smallest SD, is most homogeneous.