

- 1) C (p. 4)
- 2) A (p. 5)
- 3) A (p. 5)
- 4) B (pp. 6-7)
- 5) B (p. 6)
- 6) B (p. 11)
- 7) B (p. 11)
- 8) C (p. 13)
- 9) B (p. 17)
- 10) C (p. 29)
- 11) D (p. 29)
- 12) B (p. 38)
- 13) D (p. 39)
- 14) B (p. 54)
- 15) C (pp. 51-56)
- 16) B (p. 68)
- 17) C (p. 68)
- 18) C (p. 68)
- 19) C (p. 68)
- 20) A (p. 75)
- 21) a. lower quartile:  $Q1=75$ ; upper quartile:  $Q3=90$  (pp. 79-80)
  - b. interquartile range:  $90 - 75 = 15$
  - c. Yes; the smallest measurement, 30, is three times the interquartile range less than the lower quartile, so it is a suspected outlier. Alternatively, 30 is three times the standard deviation less than the mean. (p. 85)
- 22) a. mean:  $\bar{x} = 5.5$ ; sample standard deviation:  $S_x \approx 3.0$ ; sample variance:  $S_x^2 \approx 9.0$ 
  - b.  $(5.5 - 2 \times 3.0, 5.5 + 2 \times 3.0) = (-.5, 11.5)$  (p. 68)

For #21 part (c): You should identify any potential outliers and state the specific criterion you are using to make the identification. (See page 85)

For #22: Recall that we use  $s$  to denote the sample standard deviation and  $\sigma$  to denote the population standard deviation. (See page 63). The sample variance is  $s^2$ .