## **ANSWERS**

- **1. a)** independent: speed; dependent: distance travelled
  - **b)** independent: quality of study; dependent: exam mark
  - c) independent: time of year; dependent: cost of vacation
  - **d)** independent: number of sweaters; dependent: amount of wool needed
- 2. a) independent: capacity of gas tank; dependent: distance travelled
  - **b)** as the capacity of the gas tank increases, so does the distance travelled
- 3. a) Comparison of Heights and Arm Spans

  y

  180

  (E) 175

  ED 170

  X

  165

  160

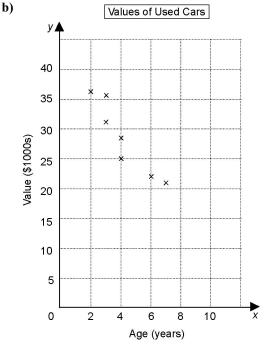
  155

  X

  150 155 160 165 170 175 180

  Height (cm)
  - **b)** A taller person tends to have a longer arm span and a shorter person tends to have a shorter arm span.
  - c) There is one outlier. The height 157 cm and arm span 171 does not fit the pattern of the other data. In most cases, height and arm span are almost equal.

4. a) independent: age; dependent: value



- c) As a car gets older, its value tends to decrease.
- d) Jane paid too much. When I plot the point (7, 28) on the scatter plot, I can see it is an outlier. The value of another 7-year-old car is only \$21 000 and a 4-year-old car has a value of \$29 000.