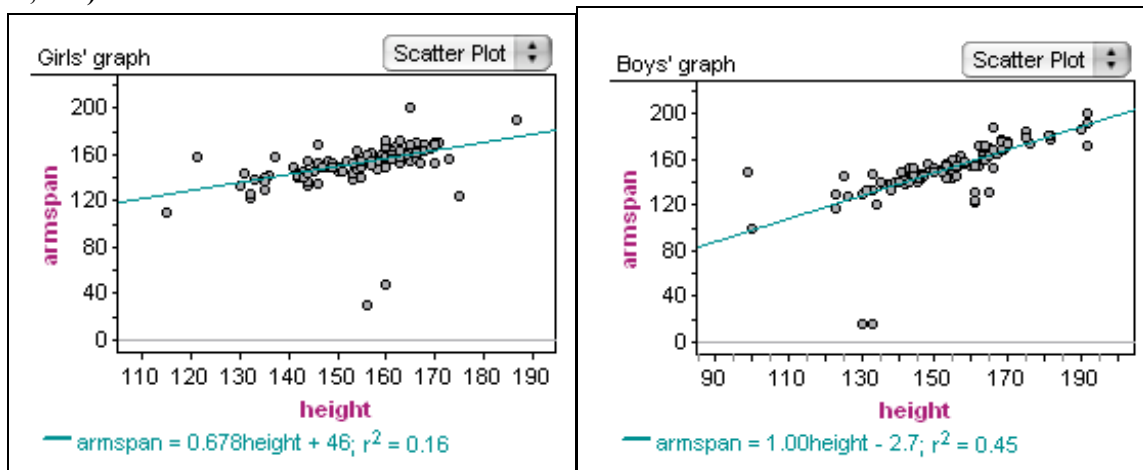**Task**
Explore the Statistics Canada Web Site
Sample Solution

Part B: Census at School

1., 3. a)

2. In each case, the dependent variable is arm span and the independent variable is height.

3. b) The slopes of both graphs are positive.
c) *Females*: From the graph, most of the points are clustered around the line of best fit. The value of r^2 is only 0.16, but that is a result of the many outliers. There appears to be a reasonably strong positive correlation between height and arm span.
Males: From the graph, most of the points are clustered around the line of best fit. The value of r^2 is only 0.45, but that is a result of the few outliers. There appears to be a reasonably strong positive correlation between height and arm span.
d) There are some outliers on each graph. These points seem to represent people who are over 1 m tall but have extremely short arm spans. Perhaps the arm span was measured or recorded improperly. Or perhaps the person was a young child. These outliers should be removed from the sets of data because they do not describe the average person.

4. Yes. His statement seems to be especially true for people over 120 cm tall, since there are many points grouped where height approximately equals arm span. Perhaps da Vinci's rule is more accurate for adults, since children grow at different rates and continue to grow to a certain age.