Chapter 3

3.1 Number of returns:

![Bar Chart of Frequency vs. Taxable Income]

Average tax:

![Bar Chart of Average Tax vs. Taxable Income]
3.2 Region: Sales: Last year

Region: Sales: Previous year
Division: Sales: Last Year

Division: Sales: Previous year
b In the first year (1994) the U.S. dollar was worth $1.3173 Canadian. It decreased over the next 2 years and rose for the following 2 years. This was followed by a decrease and 2 increases. It decreased slightly in 2003 and fell sharply to 1.2958 in 2004.

c There is a small amount of information, particularly useful for Canadian and American shoppers who cross-border shop.

d The chart can be made more informative if we include other variables that may explain the fluctuations. For example, we could include interest rates in both countries as well as other economic variables.
3.5

Bar Chart

Country

3.6

Line Charts

Year

Numbers (1,000s)

Bachelor's Male

Bachelor's Female

Master's Male

Master's Female

First Professional Male

First Professional Female

Doctor's Male

Doctor's Female
We enlarged this line chart to make it easier to see the trends. However, it may be better to separate Bachelor’s degrees in a bar chart and the other three designations in line charts.
3.7 a

**Line Chart**

**Verbal scores**

**Mathematics scores**

![Verbal scores chart](image)

![Mathematics scores chart](image)
Line Charts

Verbal scores

Mathematics scores

Year
d The chart in a is more honest.
b To show actual changes it is probably best to show constant dollars on a graph with a 0.
Line Chart

K to Grade 8 Private school

Grades 9 to 12 private school

Year

Year