Chapter 1 Gifted and Enrichment
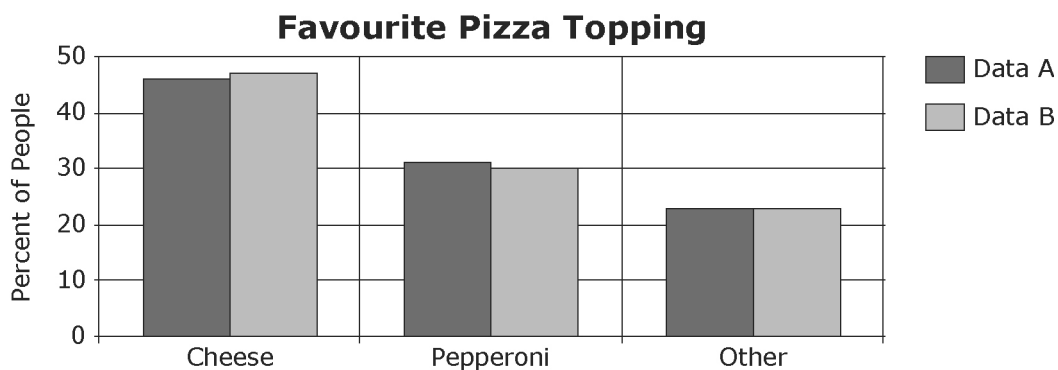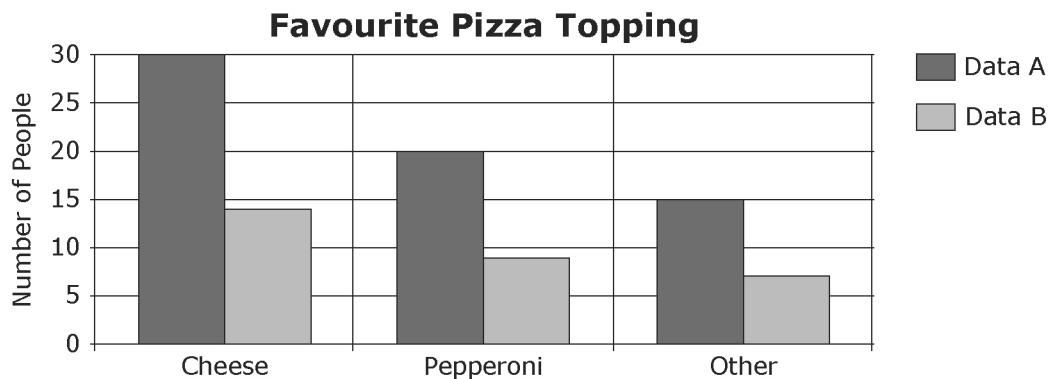
1. Two students collected data from different people about favourite pizza toppings.

Favourite Pizza Topping	Number of People	
	Data A	Data B
Cheese	30	14
Pepperoni	20	9
Other	15	7

Two double-bar graphs were made using the data.

a) What overall conclusion can you draw from the first graph? the second?
b) Why are the conclusions so different?
c) Assume you and a friend collect data from different students about a specific topic using the same survey question. Would you expect to draw different conclusions when the data were graphed using Number of People and using Percent of People? Explain.
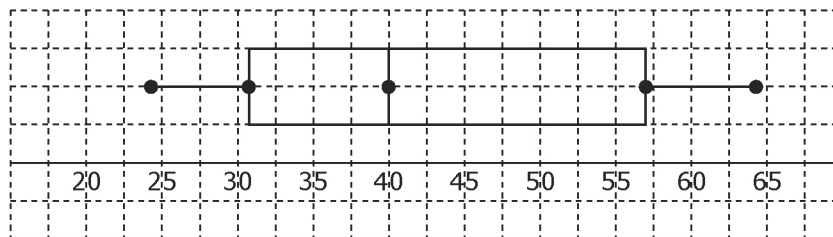
Chapter 1 Gifted and Enrichment continued

2. The following data are a set of test marks.
58, 38, 25, 33, 36, 59, 39, 41, 52, 26, 53, 33, 55, 56, 25, 60, 63, 24,
63, 64, 29, 50, 27, 35
a) What is the lowest mark? the highest mark? the median?
b) What is the median of the marks above the median? below the median?
c) Explain how the five numbers you found in parts a) and b) were used to
make this box-and-whisker plot.

d) The median of the marks above the median is called the upper quartile
and the median of the marks below the median is called the lower
quartile. Why are those names appropriate?
e) What is an advantage and disadvantage of this type of graph?

3. At the World Cup in December 2008 at Igls, Austria, Canadian bobsledders,
Helen Upperton and Heather Moyse won gold with a time of 1 min 49.07 s.
The medal-winning countries and their times in this event are shown.

Country	Time
Canada	1:49.07
United States	1:49.21
Germany	1:49.23

a) Display the data graphically to misrepresent Canada in a positive way.
b) Explain what you did to misrepresent the data and what is shown by
your graph that misrepresents Canada in a positive way.

4. A shoe manufacturer tracked
sales for a year about the type,
number, size, and selling price
of their shoes. Describe three
graphs using the data collected
that would show useful
information for future production
and why they would be useful
graphs.

5. The developer of a suburban mall is
using census data about ages and
gender of members of households in
the suburb. In order to attract
tenants, that is, stores and services to
occupy the mall, graphs will be made
using the data. Describe two graphs
that would show useful information for
perspective tenants and why each
would be useful.