

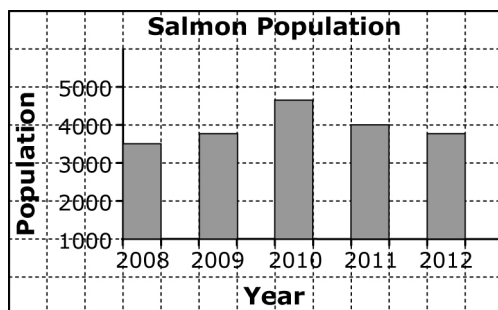
## Section 4.1 Extra Practice

1. Michael surveyed his class about what they plan to do after graduation. The results are shown in a table.

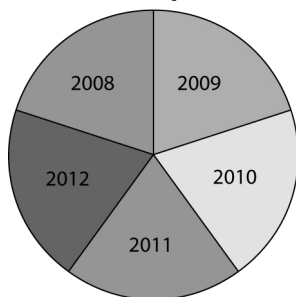
Graduation Plans	Number of Students
University	18
College	14
Apprenticeship	12
Work force	16

- a) Represent the data using a bar graph.  
b) Represent the data using a circle graph.

2. Sandra has displayed a salmon population in two graphs.



**Salmon Population**



Which graph is most appropriate to represent the data? Why?

3. The school district tracks the kindergarten enrolment each year.

Year	Number of Kindergarten Students
2008	2403
2009	2375
2010	2382
2011	2363
2012	2351
2013	2286

- a) What type of graph would best represent the percent of kindergarten students enrolled in the school district each year, for 6 years?  
b) Represent the data with the type of graph you chose in part a).



- 4.** Ann surveyed 40 students on their favourite type of online game.

Game Type	Number of Votes
Puzzle	4
Strategy	3
Racing	15
Action	12
Sports	6

- a)** What type of graph would best show that a majority of the students like racing and action online games?
- b)** Represent the survey results using the type of graph you chose in part a).
- c)** Does your graph allow you to easily determine how many students voted for each type of game? Explain why or why not.
- d)** Describe one advantage and one disadvantage of your graph.
- 5.** Is the type of graph used to display the data in each scenario appropriate? Why or why not?
- a)** Samuel tracks the height of his new puppy over 6 months. He represents the data with a line graph.
- b)** Thomas creates a histogram to represent the balance in his bank account last year.
- c)** Leslee records the number of push-ups each student finished in 1 min. She represents the data using a histogram.

- 6.** Students in Jay's math class received the following marks on their midterm report card.  
77, 55, 63, 82, 91, 76, 41, 67, 73, 38, 77, 93, 88, 81, 56, 68, 65, 72, 75

**a)** Complete the table.

Mark Interval	Tally	Frequency
29.5–39.5		
39.5–49.5		
49.5–59.5		
59.5–69.5		
69.5–79.5		
79.5–89.5		
89.5–99.5		

- b)** Create a histogram to represent the data.
- c)** What mark interval has the greatest frequency?



**BLM 4-5**

(continued)

7. Richard sells hand-crafted walking sticks. He tracks his monthly sales for six months.

Month	Walking Stick Sales (\$)
July	540
August	635
September	216
October	282
November	651
December	842

- a) What type of data are Richard's sales?  
 b) Represent the data using a line graph.
8. Edith keeps track of the number of volunteer hours worked by students in her leadership class.

Number of Hours	Tally	Frequency
0-5.5	HHH HHH II	
5.5-10.5	HHH HHH I	
10.5-15.5	HHH II	
15.5-20.5	III	
20.5-25.5	II	

- a) Draw an appropriate graph to represent the data for the school principal.  
 b) Explain why you chose the type of graph you used in part a).

- c) The principal wants to know what percent of the class has over 10.5 volunteer hours. How should Edith respond?  
 d) Would another type of graph be suitable to represent the data to answer the principal's question? Why or why not?

9. The following table shows information about average annual income, by region, for three years.

Region	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)
Atlantic Canada	45 622	44 296	42 707
Québec	46 419	45 371	42 714
Ontario	55 172	60 164	60 455
Western Canada	52 819	65 546	47 733
Territories	68 864	60 220	60 779

- a) Create a graph that compares the average annual income, by region, for year 1.  
 b) Create a different type of graph that shows the average annual income for your region for three years.  
 c) Give an advantage of using each of the types of graphs you made.

