



Bar and Line Graphs

Suggested Time: 45 minutes

What's important in this lesson:

In this lesson, you will read, interpret and create bar and line graphs.

Complete the following steps:

1. Read through the lessons on your own.
2. Complete all questions provided.
3. If you have any questions, ask your teacher.
4. Check your answers with the teacher.

Hand in the following:

1. Practice Problems
2. Bar Graphs Evaluation
3. Line Graphs Evaluation

Questions for the teacher:



Bar and Line Graphs

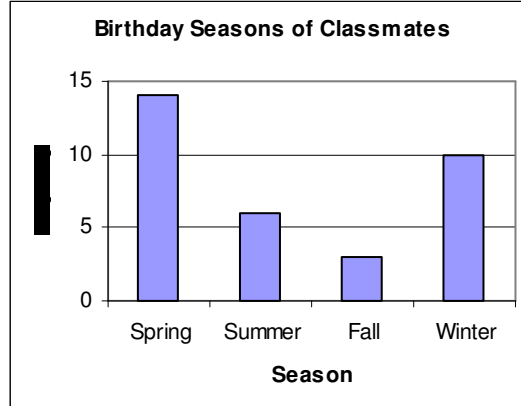
Part A: Bar Graphs

A **bar graph** uses horizontal or vertical bars to represent data visually.

1. Read the bar graph to answer:

- How many classmates have a birthday in Spring? _____
- Which season does the class have the least number of birthdays?

- How many students are in the class?



Explain how you calculated this.

2. The table shows a student's spending in August.

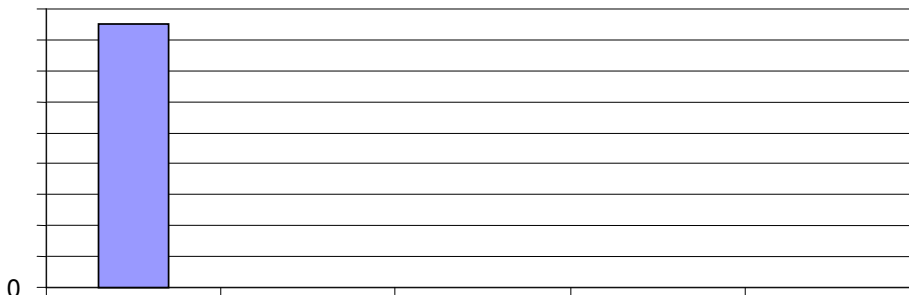
Read the table to answer:

- What category did the student spend the highest amount? _____
Considering the time of year, what could be a reasonable explanation for this?

Category	Amount
Clothing	\$85
Food	\$50
Transportation	\$25
Entertainment	\$60
Miscellaneous	\$15

- How much did the student spend during August? _____
- Create a bar graph for this data.

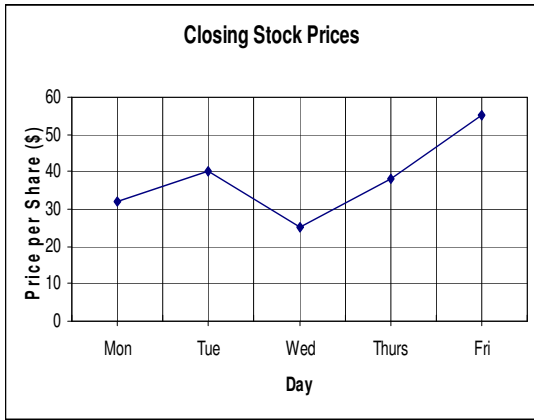
Check to include: Title Horizontal axis with even spacing between bars
 Horizontal labels Vertical labels & scale





Part B: Line Graphs

A **line graph** uses straight lines to connect the points of data visually.



- Read the line graph to answer:
 - What was the closing stock price for this company on Tuesday? _____
 - What was the lowest price per share this week? _____
 - Over the week, approximately how much did the price per share increase?

Explain how you calculated this.

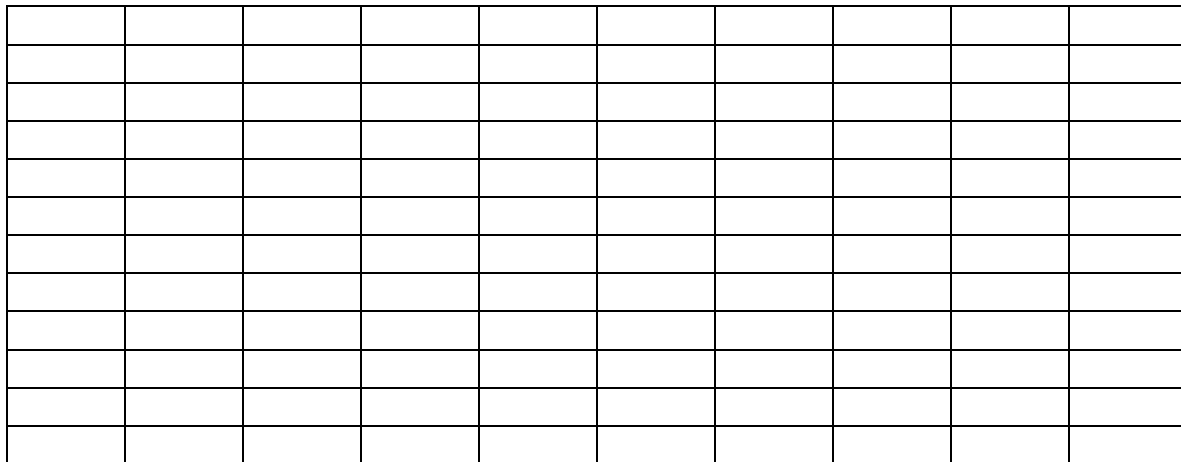
2. The table shows a student's spending over a school year.

Read the table to answer:

- Which month does the student spend the most? _____ the least? _____
- Give a reasonable explanation for March's high spending amount.
- Calculate the amount spent each semester.
Sem I: _____ Sem II: _____

Month	Amount
Sep	\$120
Oct	\$ 75
Nov	\$ 30
Dec	\$100
Jan	\$ 15
Feb	\$ 80
Mar	\$ 95
Apr	\$ 25
May	\$ 40
Jun	\$ 75

- Create a line graph for this data. Check to include:
 Vertical labels & scale
 Horizontal axis with even spacing Horizontal labels Title





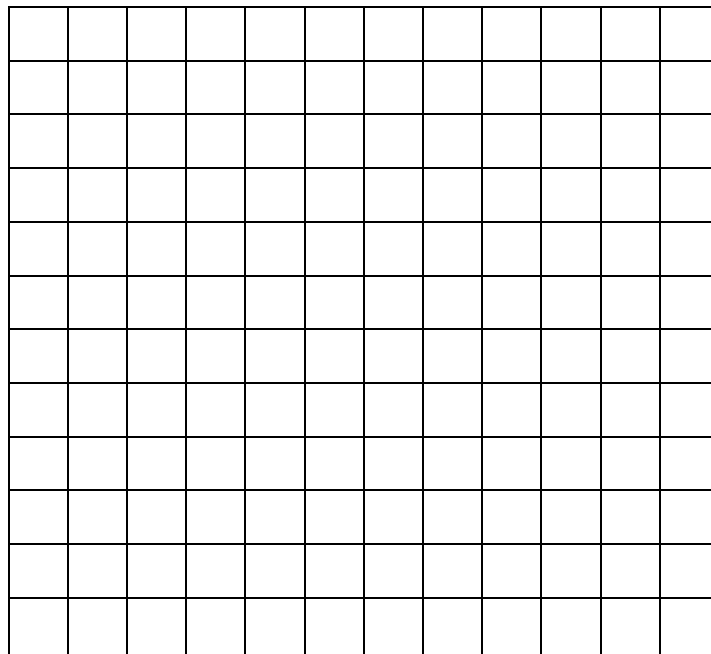
Bar Graphs Evaluation

1. For a survey assignment, students were asked to identify their favourite sport. The data is shown in the table.

Favourite Sport	Frequency
Hockey	24
Volleyball	39
Tennis	7
Foosball	19
Basketball	55

- a) Create a Bar Graph for this data. Include all the parts.

[6]



- b) How many students were surveyed? [1]
- c) Which sport was the most favourite? [1]
- d) How could you answer part c) using only the table? [1]
- e) How could you answer part c) using only the graph? [1]

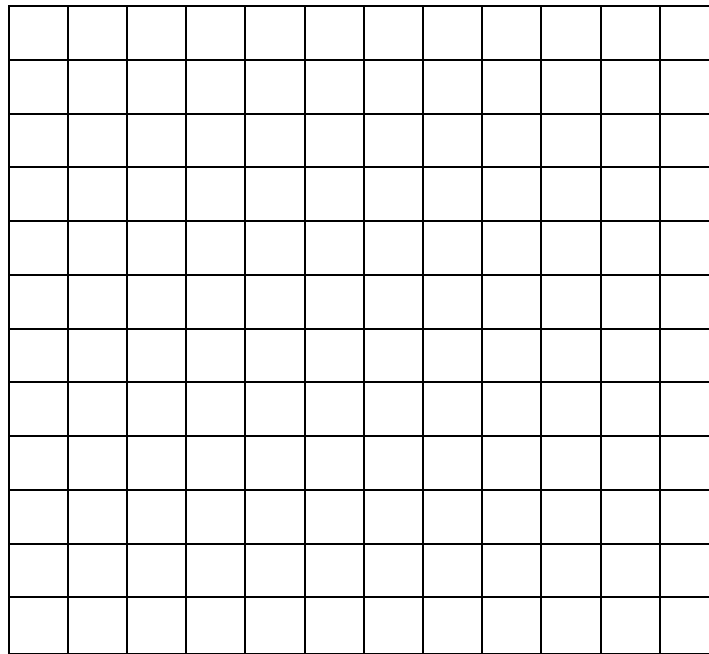


Line Graphs Evaluation

Many students are paid minimum wage when they first start working. The minimum wage rate depends on the type of job and the worker's age. The table shows some possible minimum wage rates for students over the last twenty years in Ontario.

Year	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006
Min. Wage Per Hour	\$4.30	\$4.95	\$5.95	\$6.25	\$6.40	\$6.40	\$6.40	\$6.40	\$6.70	\$7.25

- a) Create a line graph. Be sure to include all the parts. [6]



- b) What seems unusual about the data from 1996 - 2002? Describe how the graph looks during those years.

- c) Minimum wage increase the most from _____ to _____. [1]

- d) How could you answer part c) using only the table? [1]

- e) How could you answer part c) using only the line graph? [1]