

Chapter 1

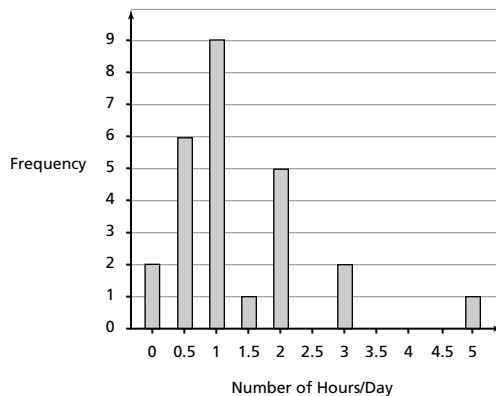
1.1 Exercises, page 11

- Each soccer ball represents 2 goals.
 - Jared: 14, Phil: 10, Beth: 8, Talia: 16
 - Example:* Sometimes you might have to use part of the symbol and then it is hard to tell the fraction of the symbol drawn.
- Each tick represents 3.5 students.
 - Have each tick represent a whole number, say 4 or 5.
 - about 542

3. (a)

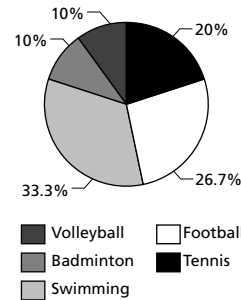
Number of Hours	Tally	Frequency
0		2
0.5		6
1		9
1.5		1
2		5
2.5		0
3		2
3.5		0
4		0
4.5		0
5		1

(b) **Television Viewing**



- 3.1 h/day; Most students underestimated their television watching time.
- Label on the vertical axis.
 - Both display frequency of the data.
 - Histograms display frequencies for continuous intervals, while bar graphs show frequencies for each discrete horizontal-axis value.
 - When data are in intervals, not discrete.
 - French Language 16.7%, English Fiction 27.8%, English Non-Fiction 44.4%, Reference 5.6%, Spanish Language 5.5%
 - French Language \$20 875, English Fiction \$34 750, English Non-Fiction \$55 500, Reference \$7000, Spanish Language \$6875

6. **Favourite Sport**



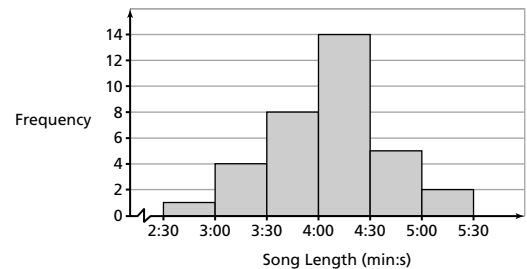
7. (a) (b) 93.3%

Class Interval	Frequency
2:30–2:59	1
3:00–3:29	4
3:30–3:59	8
4:00–4:29	14
4:30–4:59	5
5:00–5:29	2

- (c) You do not need to check every song's length.

(d) histogram

Length of Songs



8. (a)

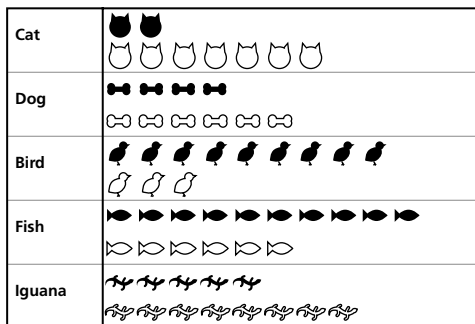
Stem	Leaf
1	6
2	1 4 5
3	0 3 3 4
4	8
5	2 3
6	
7	1 1 2 6 6
8	9
9	8
10	2 6 8 9 9
11	0 2 6 8
12	2 2 8

- (b) 16

- (c) 40%

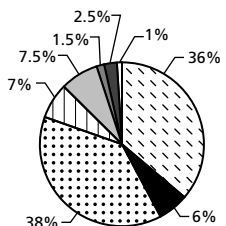
9. (a)

Preferred Pet



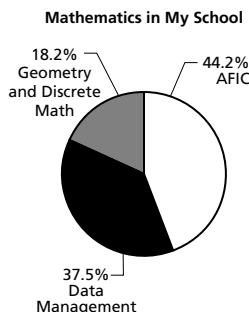
Black represents Grade 9 student
White represents Grade 12 student

- (b) $\frac{41}{60}$ or 68%
(c) $\frac{24}{30} = 80\%$; A lot more Grade 9 students have pets other than cats and dogs.
10. (a) pie chart (b) bar graph
(c) circle graph (d) bar or pie graph (e) bar graph
12. (a) **Blood Types in Canada** (b) 315



■ A- □ O- ■ B- □ AB-
▨ A+ ▤ O+ ▩ B+ ■ AB+

14. (a) Answers will vary;
for example: AFIC: 80,
Data Management: 68,
Geometry: 33



- (b) Answers may vary. Circle graph is easier to compare.
(c) More students are enrolled in AFIC than either of the other Grade 12 courses.

1.2 Exercises, page 20

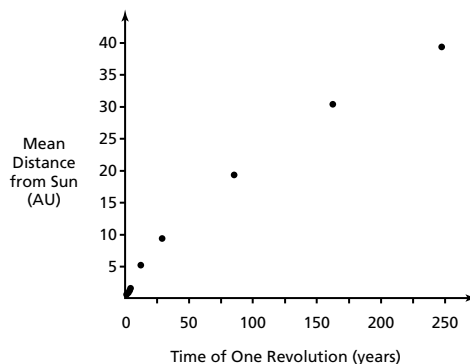
- no
- yes
- no
- Males care less.
- no
- more females; 8 female, 4 male
- no
- more males
- (a) Yes; If $\frac{4}{11}$ of the May Go group attend, you are above 55%.

- (b) The student council should report that only 31 of the 85 students polled said they will not go.

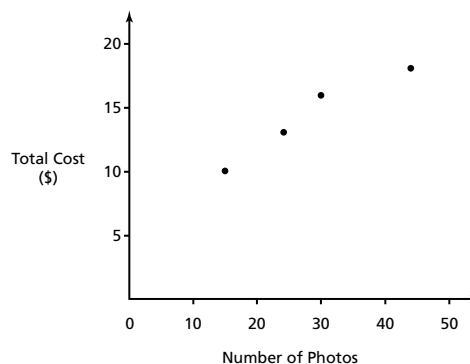
12. (a) No, you do not know if those who enjoy mathematics are the ones who will complete university.
(b) Combine the graphs and give proportions of level of enjoyment of mathematics within the level of education.
13. (a) Proportion of infant deaths has been decreasing since 1948.
14. (a) The temperatures at the South Pole have remained basically the same from 1957 to 1987.
15. (a) 83% of people answered less than 6 questions correctly; 55% answered less than 4 questions correctly.
(c) The higher the level of education a person has, the greater their chance of answering a question correctly.

1.3 Exercises, page 37

1. (a) **Time of Revolution and Distance from Sun**



- (b) **Total Cost of Photos**



- (c) **Average Speed and Number of Seats on Airplanes**

