9. (a) 

<table>
<thead>
<tr>
<th>Preferred Pet</th>
<th>Grade 9 Students</th>
<th>Grade 12 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Dog</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Bird</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Fish</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Iguana</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

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

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.
(b) No, you do not know if those who enjoy mathematics are the ones who will complete university.
(c) Combine the graphs and give proportions of level of enjoyment of mathematics within the level of education.

15. (a) 83% of people answered less than 6 questions correctly; 55% answered less than 4 questions correctly.
(b) The higher the level of education a person has, the greater their chance of answering a question correctly.

1.2 Exercises, page 20

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

1.3 Exercises, page 37

1. (a) Time of Revolution and Distance from Sun
(b) The student council should report that only 31 of the 85 students polled said they will not go.
(c) Answers may vary. Circle graph is easier to compare.

(e) More students are enrolled in AFIC than either of the other Grade 12 courses.
2. (a) no trend  
(b) no trend  
(c) weak positive correlation  
(d) strong positive correlation

3. (a) weak negative trend; The more students, the less money that was collected.

4. (a) $y = -7.4x + 136.5$, about 70

5. (a) There is a weak positive correlation; attendance seems to increase with time.

6. $y = 0.345x + 6.115$, about 16

7. $y = 0.0219x - 36.555$, about 5.93

8. $y = -203.57x + 2482.98$, about 1 more