

Book Six Final Review

You will now practice all the skills you learned in Book 6. You can use this as a review for your final test.

If you can't remember how to do a question, go back to the lesson on this topic to refresh your memory. The unit and topic for where each question came from is listed next to the question.

Example: **1A** means Unit 1, Topic A

1-A

1. Write the ratios asked for.

- a) Lillian biked for 6 hours, and covered a total of 45 km. What is the ratio of kilometers to hours?

- b) Nine hundred cars were lined up at the ferry terminal. 300 hundred cars got on the next sailing. Write a ratio of how many cars were left behind to how many cars got on the first sailing.

1 – B

2. Simplify these ratios.

a) $9:12 =$ _____

b) $50:5 =$ _____

c) $56:7 =$ _____

d) $100:120 =$ _____

3. Write the following ratios as rates

a) 110 kilometres to 2 hours _____

b) 9 cups of flour to 3 tablespoons of yeast _____

c) \$5.98 to 3 kilograms of apples _____

d) 240 000 people to 300 square kilometers _____

1 – C

4. Solve these proportions.

a) $1:3 = N:12$

b) $25:N = 20:4$

c) $N:49 = 14:98$

d) $4\frac{1}{2}:6 = N:3.6$

e) 2 out of 5 college students receive financial aid. North Island College has 8500 students, how many receive financial aid?

f) The dose for cough syrup is 20 millilitres for each 100 pounds of body weight. How much should be given to a 34 pound child? Round to the nearest millilitre.

2 – A

5. Write these percents using numerals and the percent sign.

a) Seventy two percent _____

b) Three - fourths percent _____

c) one hundred two percent _____

6. Write these percents in words.

a) 12 % _____

b) 35.7 % _____

c) $\frac{1}{5}$ % _____

7. Change the percents to equivalent decimals.

a) 17 % _____

b) 75 % _____

c) 10.35 % _____

d) $98\frac{1}{2}$ % _____

e) $\frac{1}{3}$ % _____

f) 304 % _____

8. Write the decimals as percents.

a) 0.45 _____

b) 4.75 _____

c) 0.34 _____

d) 0.099 _____

9. Change each percent to an equivalent common fraction. Put the fraction in lowest terms.

a) 45 % _____

b) $33\frac{1}{3}$ % _____

c) 14 % _____

d) 3 % _____

e) 20 % _____

f) 250 % _____

10. Write the percent equivalent.

a) $\frac{1}{5}$ _____

b) $\frac{2}{3}$ _____

c) $\frac{1}{4}$ _____

d) $\frac{3}{8}$ _____

3 – A

11. Find the answers.

(Express percents rounded to the nearest tenth, money to the nearest cent and decimals to the nearest thousandth. Please show all your work. Use proportion.)

a) 13% of 52 = _____

b) $17\frac{1}{2}\%$ of 1040 is _____

c) $\frac{9}{10}\%$ of 2400 is _____

d) What is 15% of 160? _____

e) What is 135% of 1080? _____

12. Solve these problems. Be sure to show all your work.

a) Marianne is renovating her kitchen, and she is ordering everything from her local hardware store. She is getting a sink for 204.79, a dishwasher for \$524.95, a counter for \$949.99, flooring for \$719.95, and a fridge for \$579.49.

a) Calculate the HST (12%)

ii) Calculate the total cost, including the taxes.

b) Shane sold a home for \$340 500.00 for a client. She earned 6% commission. How much money did Shane make?

c) A love seat is originally priced at \$904.00, it is offered at 45% off. What is the discount price?

d) Calculate the total cost in Canadian dollars of this purchase made in the United States. Assume \$1.00 Canadian = \$0.92 U.S.

Clothes – Total price in \$US = **\$317.98**.

- i. Price in Canadian dollars _____
- ii. Duty at 13.5% _____
- iii. Total of Canadian value + duty _____
- iv. HST (12%) on Canadian value + duty _____
- v. Total cost in Canadian dollars _____

13. Find the answers.

a) 34 is what percent of 85? _____

b) 9 is what percent of 1125? _____

c) What % of 150 is 114? _____

d) What % of 68 is 170? _____

e) $125\frac{1}{2}$ is what percent of 25? _____

f) $33\frac{1}{3}$ % of what number is 60? _____

g) 32 is 20% of what number? _____

h) 75% of what number is 675? _____

i) 45% of what number is 270? _____

j) 3.75 is $1\frac{1}{4}$ % of? _____

14. Solve these problems. Be sure to show all your work.

a) A printer is priced at \$399. It is marked 30% off.

i) what is the sale price of the printer?

ii) What is the sale price of this printer with HST (12%)?

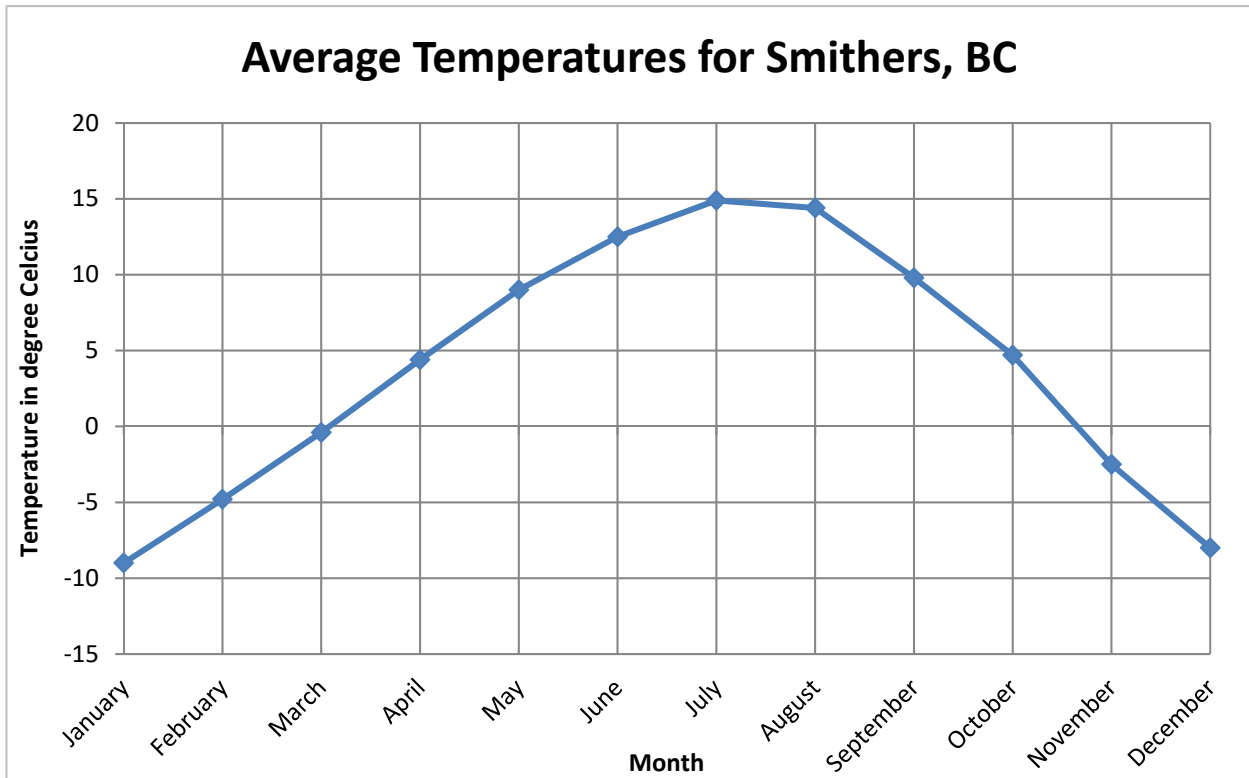
- b) Joseph bought a second hand car that was originally priced at \$6,500. He got the car for \$6 350.50. What was the percent of savings for Freddie?
- c) Betty Ann got 84 out of 95 on her English test. What percent did she get on the test? (Round your answer to the nearest tenth of a percent.)
- d) The Vancouver Fire and Rescue Service has 797 uniformed personnel, about 0.8% are women. About how many women are in uniform in the Vancouver Fire and Rescue Service?
- e) Jake is a computer salesperson. He receives a monthly salary of \$1055 plus 15% on all his sales over \$5 500. What was his total monthly earnings if his sales were \$12 400 in one month?
- f) In a recent survey of 1250 British Columbians, 461 rated their health as excellent. What percent of these British Columbians rate their health as excellent?

- g) The local ski hill sold 3800 season's passes in 2009. The 2010 sales are down 10.5%.

Find the number of season's passes sold in 2010.

5 - B

15. Line graph



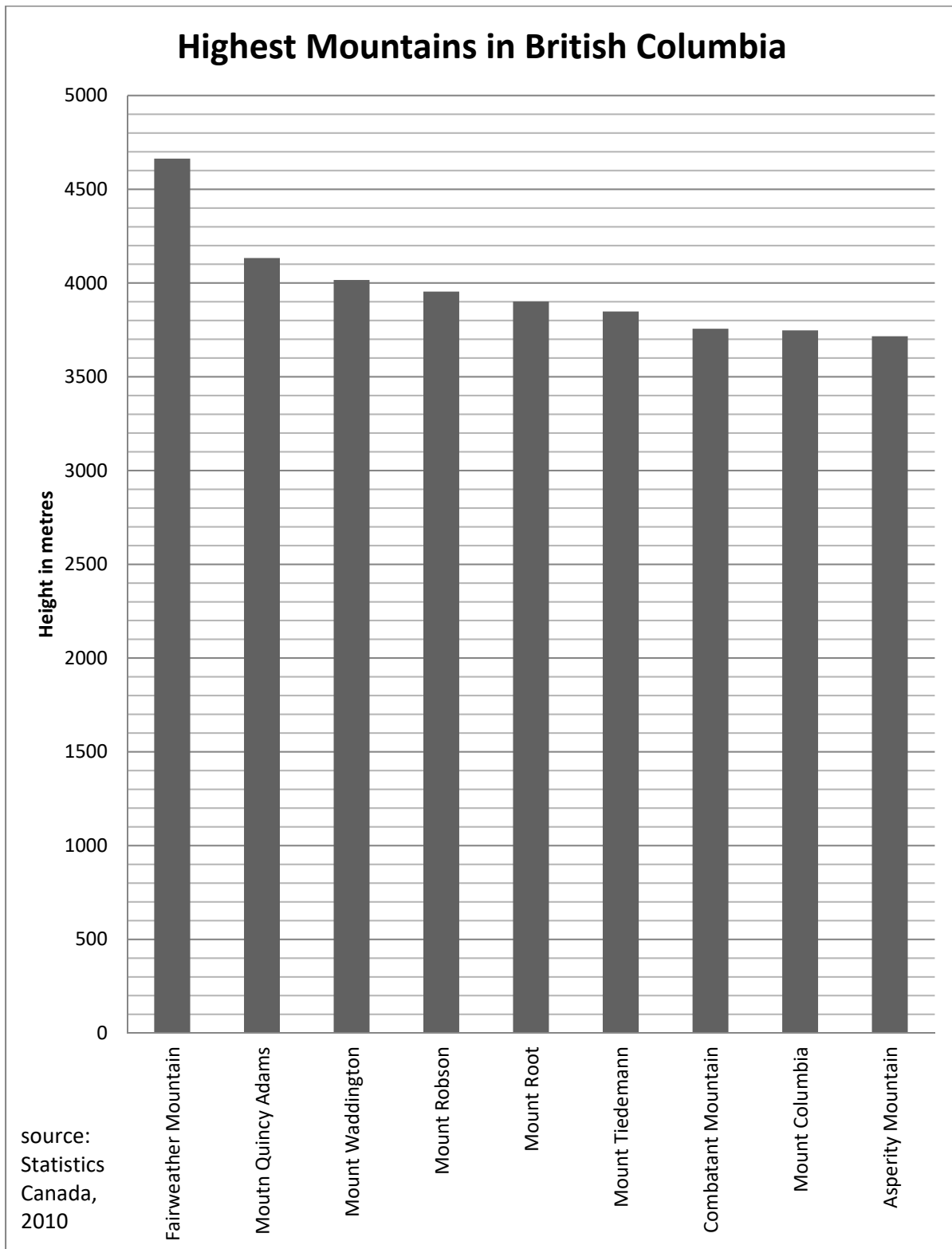
- a) Which month has the highest temperature in Smithers? _____
- b) Which month has the lowest temperature in Smithers? _____
- c) Between the months of January to July, is there an increase or decrease in temperature?

d) What is the difference between the monthly temperature for August and the monthly temperature for October? _____

e) What is the title of this graph? _____

f) What is the trend of the temperature in Smithers? _____

16. Bar Graph



a) What is the name of the tallest mountain in BC? _____

b) What is the height of the tallest mountain in BC? _____

c) How many mountains are over 4000 metres and under 5000 metres in height?

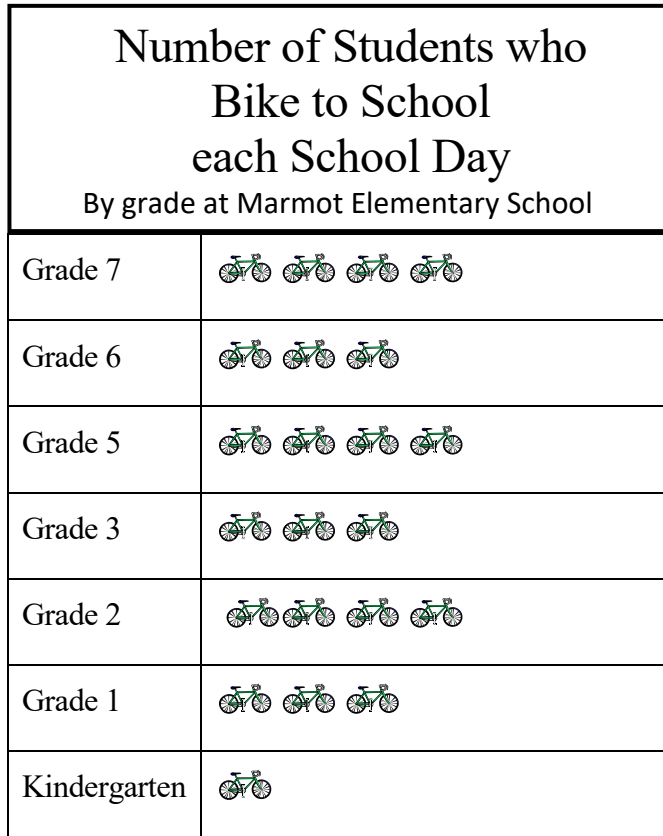
d) Which two mountains in this chart are very similar in height?


e) What is the difference (approximately) in height between Fairweather Mountain and Asperity Mountain? _____

f) What is the difference (approximately) in height between Mount Quinicy Adams and Combatant Mountain? _____

g) Mount Everest is 8848 metres tall. How much taller is Mount Everest than BC's tallest mountain? _____

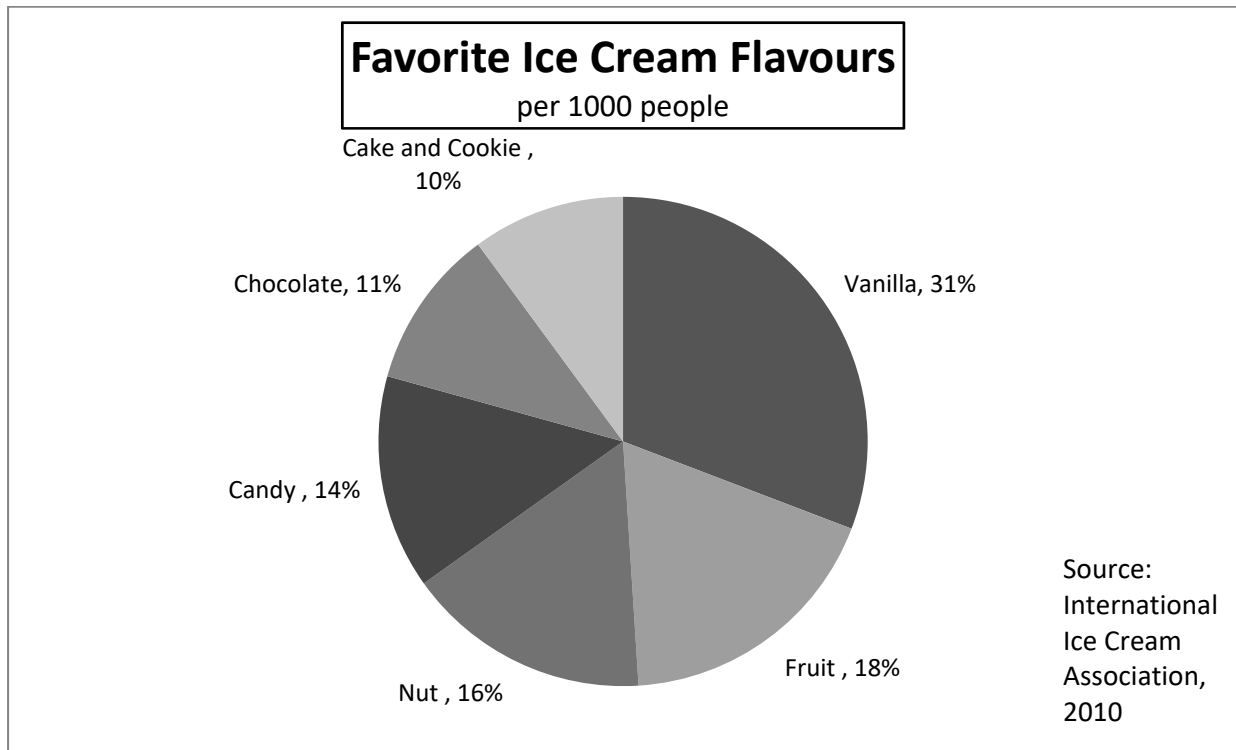
17. Picture Graph



 = 5 bikers Total School Population = 563
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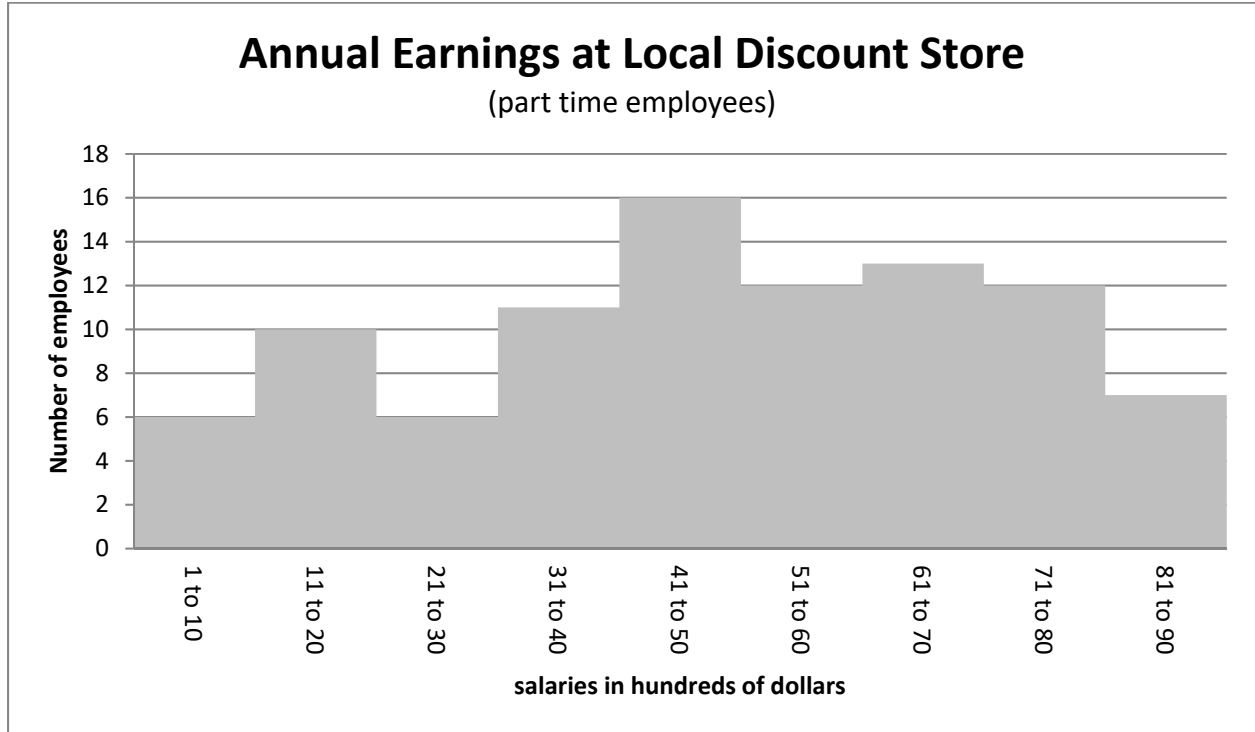
- a) How many students in grade 2 ride bikes to school? _____
- b) Which classes have the most bikers? _____
- c) Which class has the least bikers? _____
- d) How many more bikers are in grade 7 than kindergarten? _____
- e) How many students bike in total? _____
- f) What percent of the school bikes each day? _____

18. Circle Graph



- a) Which is the most favourite ice cream flavour? _____
- b) Which is the least liked ice cream flavour? _____
- c) How many people (out of 1000) like fruit flavoured ice cream? _____
- d) What percentage of people like vanilla over chocolate? _____

19. Histogram



- a) What number of employees earn between \$3100 to \$4000. _____
- b) How many employees earn between \$8100 and \$9000 in a year at the local discount store? _____
- c) The greatest number of employees are in which earnings group? _____
- d) How many employees are in that group? _____
- e) How many employees earn \$5000 or less? _____

20. Table

Tide chart for Alert Bay

Date	Time	Tide (in metres)	High or Low?
2010-10-19	00:22	3.83	High Tide
2010-10-19	06:19	1.52	Low Tide
2010-10-19	12:26	4.22	High Tide
2010-10-19	18:53	1.29	Low Tide

- a) What is the date for this tide chart? _____
- b) Where is this tide chart for? _____
- c) What are the two low tide times? _____
- d) What are the two times for high tides? _____
- e) Which is the highest tide of the day? _____
- f) What is the difference between the highest tide and lowest tide of the day?
- _____

Answers to Book 6 Final Review

1. a) 45:6 b) 600:300
2. a) 3:4 b) 10:1 c) 8:1 d) 5:6
3. a) 55 km/hr or 55km:1 hr b) 3 cups of flour to 1tbsp yeast
c) \$1.99 to 1 kg apples d) 800 people to 1 square km
4. a) 4 b) 5 c) 7 d) 2.7 e)3400 f) 7 ml
5. a) 72% b) $\frac{3}{4}\%$ c) 102%
6. a) twelve percent b) thirty five point seven percent c) one fifth percent
7. a) 0.17 b) 0.75 c) 0.1035 d) 0.985 e) $0.00\bar{3}$ f) 3.04
8. a) 45% b) 475% c) 34% d) 9.9%
9. a) $\frac{9}{20}$ b) $\frac{1}{3}$ c) $\frac{7}{50}$ d) $\frac{3}{100}$ e) $\frac{1}{5}$ f) $2\frac{1}{2}$
10. a) 20% b) $66.\bar{6}\%$ or $66\frac{2}{3}\%$ c) 25% d) 37.5%
11. a) 6.76 b) 182 c) 21.6 d) 24 e) 1458
12. a) i) \$357.50 ii) \$3336.67 b) \$20 430.00 c) \$497.20 d) i. \$345.63 ii. \$46.66
iii. \$392.29 iv. \$47.07 v. \$439.36
13. a) 40 b) 0.8 c) 76 d) 250 e) 502 f) 180
g) 160 h) 900 i) 600 j) 300
14. a) i) \$279.30 ii) \$312.82 b) 2.3% c) 88.4% d) 6 e) \$2090
f) 36.9% g) 3401
15. a) July b) January c) increase d) approximately 9 degrees
e) Average Temperature for Smithers, BC
f) the temperature goes up from January to July, and goes down from July to December
16. a) Fairweather Mountain b) (approx) 4650 metres c) 3
d) Combatant Mountain and Mount Columbia e) 950 metres
f) 370 metres g) 4198 metres
17. a) 20 b) grades 2, 5, 7 c) kindergarten d) 15
e) 110 f) 19.5%
18. a) vanilla b) cake and cookie c) 180 d) 20%
19. a) 11 b) 7 c) \$4100 to \$5000 d) 16 e) 49
20. a) October 19, 2010 b) Alert Bay c) 6:19 am and 6:53pm
d) 12:22 am and 12:26 pm e) 4.22 metres f) 2.93 metres