4 Basic Facts 1

A Counting

1 Counting up in ones, what number comes . . .

a) after 39 499? .....

b) before 56 000? .....

2 Counting up in fives, what number comes . . .

a) before 2500? .....

b) after 36 095? .....

3 Counting up in tens, what number comes . . .

a) before 4000? .....

b) after 53 000? .....

4 Counting up in hundreds, what number comes . . .

a) before 66 000? .....

b) after 380 900? .....

B Disposable Cash

1 **This TV was $1040 now $100 off**

What is the price of the TV now?

.....

2 When the rugby game started 35 200 spectators had taken their seat. Another three thousand spectators were on their way in. How many people watched this game?

.....

3a) A man saved $152 660. Write this amount in words.

.....

.....

b) The man uses his savings to buy a new car for fifty thousand dollars. How much money is left?

$ .....

C Hundreds and Thousands

1 Jot down the answer to these.

a) 5 x 10 = ... b) 7 x 1000 = ...

c) 10 x 16 = ... d) 100 x 83 = ...

e) 10 x 50 = ... f) 205 x 10 = ...

g) 100 x 417 = ...

h) 99 x 1000 = ...

2 Work out.

a) 60 ÷ 10 = ...

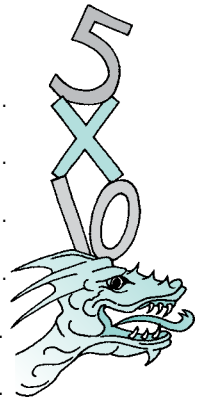
b) 900 ÷ 100 = ...

c) 500 ÷ 10 = ...

d) 7200 ÷ 100 = ...

e) 44 000 ÷ 1000 = ...

f) 10 200 ÷ 10 = ...



D Money Matters

1a) I have $6445 in my savings account. I withdraw all my money and I want as many ten dollar notes as possible.

How many $10 notes will I get? .....

b) If I want it in hundred dollar notes. How many will I get?

.....

2 A Lotto prize of three million dollars will be paid out in one hundred dollar notes.

a) How many hundred dollar notes will there be?

.....

.....

.....

b) The hundred dollar notes are tied in bundles of one hundred. How many bundles should there be?

.....

.....

28 Negative Numbers

Number Facts

A Cool

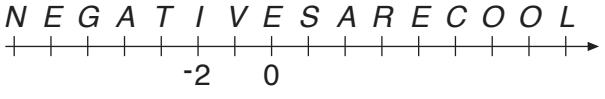
1 Write down two situations where people use negative numbers.

……

……

……

2



Question : *What word is used for the set of positive and negative whole numbers?*

Decode the answer with the help of the number line, for instance, above ⁻2 is the letter I.

Answer :

I							
-2	-7	-3	4	-5	-6	3	1

3 The speed limit on the open road is 100 km/hr. Use positive and negative numbers to describe the speed of a car which goes at . . .

a) 104 km/hr ……+4…… (…*4 over*…)

b) 95 km/hr …… (……)

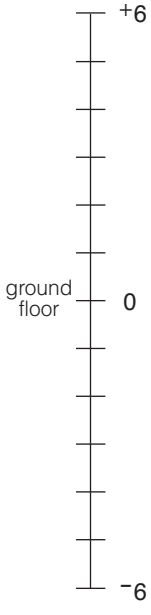
c) 118 km/hr …… (……)

d) 87 km/hr …… (……)

B The Elevator

A government building in the USA has a car park on the ground floor. Above this are 6 office floors. It also has a nuclear bomb shelter covering the 6 floors below the ground floor.

In the elevator integers are used to indicate the floor level.



1 The Secretary of Defence went from ⁺4 to ⁻2. Did he go up or down?

……

2 A mail delivery boy started at ⁻1. He went 3 floors up, then 5 floors down, then 1 floor up.

a) Which floors did he visit? ……

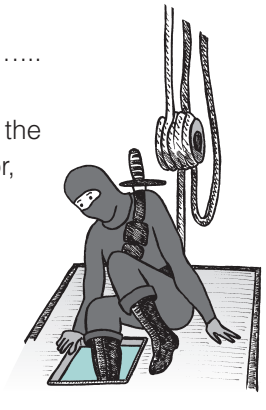
b) His next stop is the car park. How many floors up or down will he go?

……

3 A spy climbed onto the roof of the elevator. She went down 1 floor, up 2 floors, down 3 floors and ended up at ⁻5.

At what level did she climb onto the elevator?

……



C Overdrawn at the Bank

1a) What does it mean when your bank account is *overdrawn?* ……

……

b) Ben has $90 in his bank account. He pays a bill of $30 and another of $80. Describe Ben's new balance with an integer. ……

c) The bank gives Ben a warning and he deposits $40. How much is in Ben's account then?

……

2 Emma's account was overdrawn. Emma deposited $50 and her account then had a positive balance of $32.

Write Emma's previous balance as an integer. ……

42 Decimal Problems 1

A Ten Quick Questions

Use mental strategies to answer these questions.

1 Calculate the cost of 10 calculators, if one costs $24.95.

.....

2 Calculate the cost of 1 school sun hat, if one hundred cost $1695.

.....

3 Dana is 1.52 m tall, Sean is 1.6 m tall.

Who is taller? .....

By how much? .....

4 What length of rope is left if we cut 2.8 m off a roll holding 9 m? .....

5 One bedside lamp costs $82.50. How much do you pay for two bedside lamps? .....

6 Circle the largest of these numbers.

7.405	7.45	7.05	7.4	7.054

7 Five Dragon Maths books weigh 2.1 kg.

a) What would 10 books weigh? .....

b) Find the weight of one book. .....

8 Aged 12 months a baby's weight was 13.8 kg. That was double the weight at age 6 months. What was the baby's weight at 6 months?

.....

9 Fingernails grow at a rate of 0.02 cm per day. How much do fingernails grow in a week?

.....

10 Zoe has a piggy bank full of 10¢ coins. When she counted the money she had $38.60. How many 10¢ coins were in the piggy bank?

.....

B Thirsty Work

Use pen and paper strategies to work out these problems. Show your working.

working space

1 What change should you get from $20 if you buy 7 cans of soft drink at $2.40 each?

.....

2 Eight bottles of cola were bought for a party. Each bottle holds 1.5 L.

a) How many litres of cola were bought?

.....

b) Ron opened a fresh bottle and poured two 0.32 L glasses of cola. How much was left in the bottle?

.....

3 On a 6 day tramping holiday, Jason and Dean covered a total of 106.8 km. What distance did they walk, on average, each day.

.....

4 Ten bottles of juice cost $39.50. How much do three bottles of juice cost?

.....

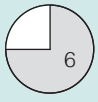
5 Petrol costs $2.92 per litre. How much will it cost to fill a tank with 40 L of petrol?

.....

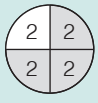
A What Was the Whole Amount?

The following questions work the other way round. A fraction of an amount is known and we must calculate the whole amount.

Examples : $\frac{3}{4}$ of a ribbon is 6 metres long.
How long is the whole ribbon?

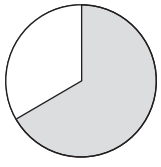


Working : If $\frac{3}{4}$ is 6 metres,
then $\frac{1}{4}$ must be 2 metres,
then the whole ribbon is 8 metres.



Answer : 8 metres

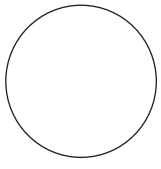
1a) $\frac{2}{3}$ of my lucky number is 14.



What is my lucky number? .....

b) $\frac{3}{5}$ of Leo's pocket money is $9.

How much is Leo's pocket money?



.....

c) Three quarters of a journey is 60 km.

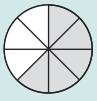
How long is the journey? .....

d) $\frac{2}{5}$ of a holiday is 10 days. How long is the holiday?

.....

B With Calculator

Examples : $\frac{5}{8}$ of the price of a TV is $432.50.
How much does the TV cost?



Working : If $\frac{5}{8}$ equals $432.50, then $\frac{1}{8}$ equals

432.5	÷	5	=	86.5

then the whole equals

8	x	86.5	=	692

Answer : $ 692.00

1a) $\frac{1}{3}$ of the length of the equator is 13358 km.
How long is the equator?

.....

b) $\frac{2}{5}$ of Alex's weekly wages is $294.30.
Calculate Alex's weekly wages.

.....

.....

c) $\frac{3}{10}$ of the volume of a swimming pool is 12300 litres.
What is the total volume of the pool?

.....

.....

C Read and Draw a Diagram

working space

1 Keegan bought a Bluetooth Speaker for $200. His father paid $\frac{2}{5}$ of it. How much did Keegan pay himself?

.....

2 There are 240 people seated in a movie theatre. One third of the seats are empty. How many seats are there in this theatre?

.....

3 On a tramp Natalie drank $\frac{3}{4}$ of a 1200 mL bottle of water. How much water did she drink?

.....

4 Rachel spent a third of her money on lunch at the school canteen and one sixth on an exercise book at the stationery shop. She had $9.00 left. How much money did Rachel spend on lunch?

.....

62 Writing a Rule 1

Algebra

A Using Written Rules

1a) A telephone company charges 15¢ per minute for the first 5 minutes, after 5 minutes the call costs 10¢ per minute. Calculate the cost of a 12 minute call.

.....

.....

b) An online clothing shop has the following deal : The first T-shirt costs $30, each following T-shirt costs $25. Postage for each package is fixed at $5.
Tom orders 4 T-shirts. How much is charged?

.....

.....

.....

2 Natalia sits in a group of four. She shares her raisins with her group using this rule : *'I divide the number of raisins by 4 and the remainder is added to my share.'* How many raisins does Natalia get if she has 35 raisins to share?

.....

.....

B Making up a Formula

Example : At the cinema a student ticket costs $2 more than a child ticket. Write a formula using s for cost of a student ticket and c for the cost of a child ticket.

Answer : formula $s = c + 2$

1 When children play musical chairs there is always one less chair than there are children.

a) How many chairs with 10 kids? .....

b) If we use c for number of chairs and k for number of kids, the formula is : c = ...

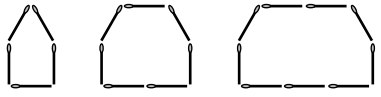
2a) Cinderella must shine 16 shoes. How many pairs of shoes is that? .....

b) Using s for number of shoes and p for pairs of shoes, the formula is : p = ...

3 In a card game each player gets 5 cards. Using c for number of cards dealt and n for number of players, the formula is : c = ...

C Townhouses

1 Mauria uses matchsticks to make these townhouses.



1 house 2 townhouses 3 townhouses .....

4 townhouses

a) Draw the diagram with 4 townhouses.

b) Fill in the table.

number of houses	1	2	3	4	5
number of matches	**5**				

c) Complete the written rule for this pattern.

The first house needs ..... *matches, for every extra house we need* ..... *more matches.*

d) How many matches are needed for a row of 20 townhouses? .....

.....

e) Mauria uses 31 matches for a row of town houses. How many houses are there in this row?

.....

f) Mauria has 100 matches. She wants to make two separate rows of town houses. How many houses can she build using all these matches? .....

.....

72 Task 1

A An Investigation into Travel Cost

The Wilsons (mum, dad and two children) live in Hamilton. Next month they plan to visit relatives in Wellington and Nelson. They first stay in Wellington for 4 days, then in Nelson for 4 days. Then they must travel home again, maybe with an overnight stop in Wellington.

They need to decide whether to go with their own car, or travel by plane.

Travel Options :

1] They drive from Hamilton to Wellington in their own car. After staying with their relatives they take the ferry boat (with car) to Picton and drive on to Nelson.

2] They fly from Hamilton to Wellington and then, after 4 days, they fly from Wellington to Nelson. Family will pick them up from the airports.

Your task is to calculate the cost of each of the travel options and to make a recommendation, taking into account advantages and disadvantages.

Relevant information :

- Mr Wilson has worked out that the running cost of his car is 60 cents per kilometre driven; this includes fuel and wear and tear to the car.
- The distance Hamilton to Wellington is 519 km; the distance Picton to Nelson is 134 km.
- Each way the ferry costs $265 for the car and 1 adult. The fare for the second adult is $81, a child's fare is $\frac{2}{3}$ of the adult fare.
- A flight between Hamilton and Wellington costs $129 each way. Adults and children pay the same.
- The flights between Wellington and Nelson are $200 per adult for the round trip (that means *'going there and back'*). Children pay 75% of the adult fare.

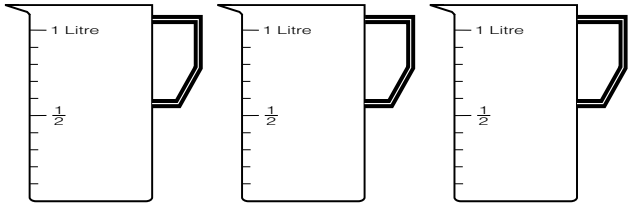
Calculations and Recommendations.

76 Capacity

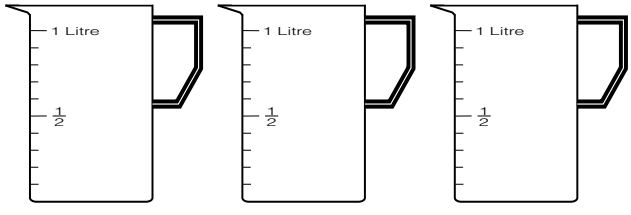
A Units

Capacity is the word we use for the volume of containers. The unit for measuring capacity is litres (L).
For small volumes we can use millilitres (mL). 1 L = 1000 mL

1 When full these jugs can hold 1 litre. Show the water level in each jug for these amounts of water.



a) 0.6 L b) 0.75 L c) 0.35 L



d) 500 mL e) 900 mL f) 650 mL

2 A container can hold 3 L of oil when full. The container is half full. How much oil is in the container? Give your answer in litres and millilitres.

Answer : ..... L, ... mL

To convert from litres to millilitres, multiply by 1000.
To convert millilitres to litres, divide by 1000.

Examples : Convert a) 1800 mL = ... L
b) 0.06 L = ... mL

Working : a) Divide 1800 by 1000. 1800 mL = 1.8 L
b) Multiply 0.06 by 1000. 0.06 L = 60 mL

3 Convert.

a) 5000 mL = ... L

b) 3600 mL = ... L

c) 30 mL = ... L

d) 0.4 L = ... mL

e) 1.25 L = ... mL

B Juggle with Numbers

1 Jolene has a large 3 L bottle of juice.

a) How many 120 mL cups can she fill?

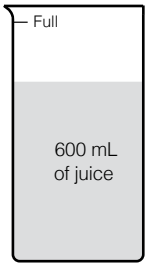
.....

b) How much juice will be left in the bottle if she pours only five 120 mL cups? Give your answer in mL and also in litres.

.....

Answer : ..... mL, ... L

2 Danny pours 600 mL of juice into a container. It fills the container to $\frac{3}{4}$ of its full capacity. What is the full capacity of the container?



.....

.....

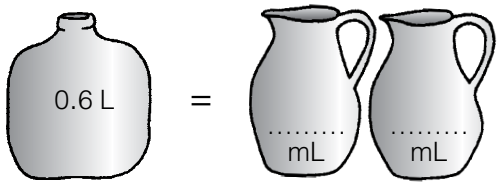
3 A bottle holds 0.25 L of cough mixture. The measuring spoon can hold 10 mL. How many spoonfuls of cough mixture can be taken out of this bottle?

.....

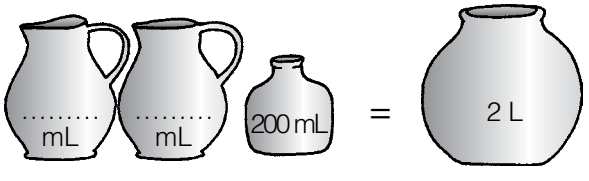
.....

4 Work out the capacity of these jugs.

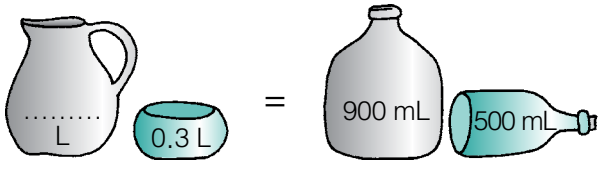
a)



b)



c)

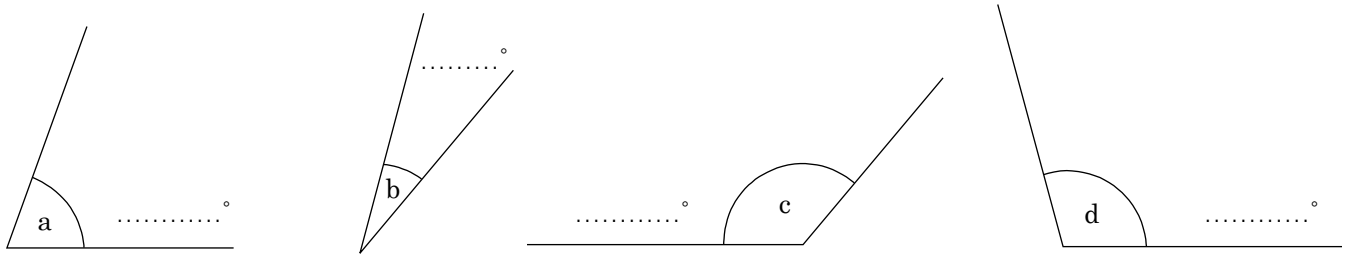


94 Angles 1

Geometry

A Using a Protractor

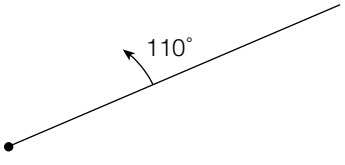
1 Use your protractor to measure these angles.



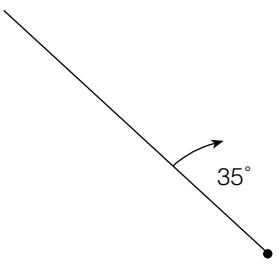
2 Draw the second arm of these angles.

a)

b)

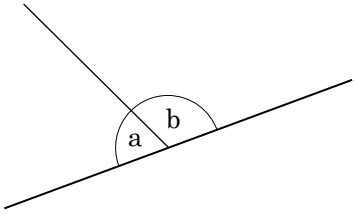


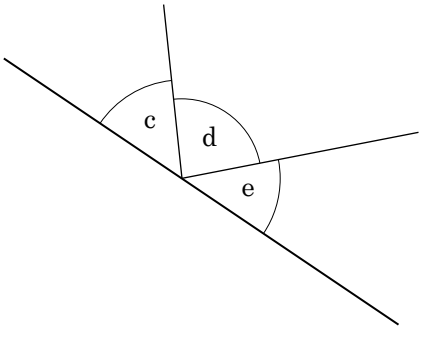
c)



3 Measure the size of each angle.

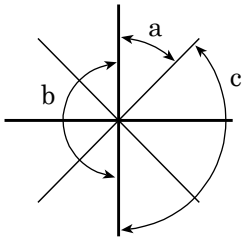
a = ...° b = ...° c = ...° d = ...° e = ...°





B Without a Protractor

1



a) How many degrees in . . .

a quarter turn? ..... a half turn? ..... a full turn? .....

b) How many degrees in . . .

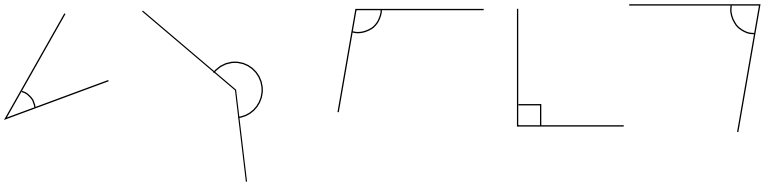
angle a ? ..... angle b? ..... angle c ? .....

2 *Acute angles* are less than 90°. *Obtuse angles* are over 90° but under 180°.
Colour the acute angles red and the obtuse angles blue.

a)

120°	58°	90°	100°
200°	103°	15°	180°

b)



A Running at Top Speed

The table shows the results of an investigation into animals running at top speed. For each animal we measured how far it could run and how long it took.

Use the information to work out the speed of each animal. (That means : If it could keep going, how many kilometres would this animal run in 1 hour?)

As a comparison we also showed running abilities of human athletes.

animal	distance run	time taken	speed
Ostrich	24 km	½ hour	..... km/h
Kangaroo	2 km	3 min	..... km/h
Hyena	20 km	25 min	..... km/h
Antelope	6 km	6 min	..... km/h
Cheetah	800 m	30 sec	..... km/h
Grizzly Bear	3 km	5 min	..... km/h
Human	100 m	10 sec	..... km/h
Human	42 km	3½ hour	..... km/h

1 Complete the table with the speeds you calculated.

working space

2a) Write a paragraph comparing the animals' performances.

.....

.....

.....

.....

.....

.....

.....

.....

.....

b) When confronted with a grizzly bear, should you run? Explain your answer.

.....

.....

.....

c) Can the antelope escape from the cheetah? Explain your answer.

.....

.....

.....

Average and Range 117

The **average** of a set of scores is found by adding all the scores and then dividing by the number of scores.
The **range** of a set of numbers is the difference between the highest score and the lowest score.

Example : The weights of 5 newborn babies at National Women's Hospital last Monday were :
3100 g, 4200 g, 3700 g, 3500 g, 4500 g.
a) Calculate the average weight. b) Calculate the range of weights.

Working : a) Altogether the 5 babies weigh 3100 + 4200 + 3700 + 3500 + 4500 = 19 000 g
On average 19 000 ÷ 5 = 3800 g Average = 3800 g.
b) The heaviest baby weighs 4500 g, the lightest 3100 g; Range = 4500 – 3100 = 1400 g.

A Lolly Scramble

1 Ten kids counted the number of lollies they had each collected in a lolly scramble. These are the results :

2	5	12	3	15	4	3	10	1	5

The kids decided to share the lollies evenly between themselves. Calculate the average number of lollies per kid.

.....

.....

2 Use a calculator to find the average of these scores.

a) 45, 27, 39, 41, 39. b) 1.5, 2.7, 3.3, 2.4

....

....

B For Sale

1 Calculate the range of these scores.

a) 250, 239, 252, 238, 241, 250.

.....

b) 1.6, 2.4, 3.1, 2.8, 1.9, 3.3, 2.3, 3.0.

.....

2 Six houses in Welcome Bay were sold for . . .
$840 000, $1 107 000, $795 000, $1 095 000, $650 000 and $995 000.

a) Work out the range of these house prices.

.....

b) Calculate the average house price. You may use your calculator. Round sensibly.

.....

C The Weather Map

1 This map shows the maximum temperatures in NZ cities on the 23rd of January.

a) Which island had the highest temperature? .....

b) Find the range of temperatures in NZ on this day. .....

c) Calculate the average and the range of the temperatures in the North Island

.....

.....

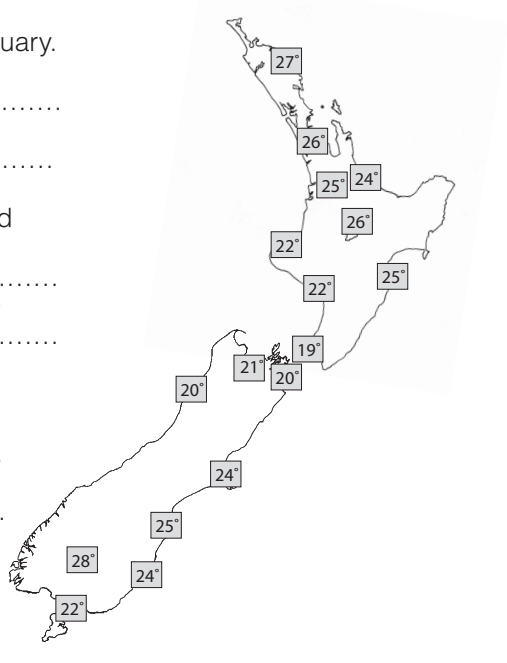
Average ..... Range .....

d) Calculate the average and the range of the temperatures in the South Island.

.....

.....

Average ..... Range .....



Answer Section A1

Pages 4 - 16
Whole Numbers

Page 4 - Basic Facts 1

A1 a) 39 500 b) 55 999
A2 a) 2495 b) 36 100
A3 a) 3990 b) 53 010
A4 a) 65 900 b) 381 000

B1 $940 B2 38 200 people
B3 one hundred and fifty-two thousand, six hundred and sixty.
B4 $102 660

C1 a) 50 b) 7000 c) 160 d) 8300
e) 500 f) 2050 g) 41 700 h) 99 000
C2 a) 6 b) 9 c) 50 d) 72
e) 44 f) 1020

D1 a) 644 b) 64
D2 a) 30 000 b) 300

Page 5 - Basic Facts 2

A1 a) i) 48 100 ii) 48 100
b) 60 721, 48 100, 11 064, 5901, 4825, 1003, 974, 176.
A2 a) 4125, 4152, 4251, 4521 b) 5412
A3 a) 14 014 b) 910 000

B1 a) 40 b) 70 c) 110 d) 3260
B2 a) 400 b) 1000 c) 1900 d) 3500
B3 a) 5000 b) 4500 c) 4540

C1 a) Bulmer Cavern b) Aurora-Te-Ana-au
c) 39 500, 28 730, 24 252, 13 712, 12 197, 7300, 6400
C2 a) 12 200 m b) 29 000 m
c) thirty-nine thousand, five hundred metres.

Page 6 - Strategies + and −

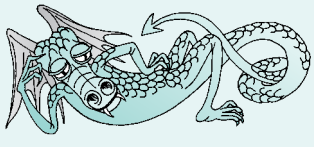
A1 a) 95 b) 252 c) 473 d) 700
e) 832 f) 1515 g) 7200 h) 7843
i) 33 600
A2 a) 187 b) 456 c) 531 d) 920
e) 3130 f) 378 g) 462
A3 a) 13 b) 31 c) 46 d) 52
e) 14 f) 37 g) 260 h) 230
i) 290 j) 760 k) 555 l) 242

B1 a) 40 b) 400 c) 58 d) 20
e) 200 f) 50
B2 a) 276 b) 189 c) 391 d) 596
B3 a) 724 b) 165 c) 392 d) 248
e) 46 f) 861
B4 a) 108 b) 294 − 60 − 6 = 228
c) 513 − 40 − 2 = 471 d) 407 e) 218
B5 a) 12 + 105 = 117 b) 1 + 112 = 113
c) 20 + 222 = 242 d) 25 + 144 = 169
e) 150 f) 1235

Page 7 - More Strategies + and −

A1 a) 497 b) 426 c) 373 d) 582
e) 515 f) 466
A2 a) 756 b) 555 c) 185 d) 133
e) 1281 f) 2019
A3 a) 85 b) 161 c) 141 d) 503
e) 898 f) 1396
A4 a) 395 b) 269 c) 455 d) 419
e) 521

B1 a) (50 + 15) − (20 + 8) = 37 b) 56 c) 68
d) 239 e) 366
B2 a) (300 + 120) − (100 + 60) = 260 b) 390
c) 440 d) 380



Page 8 - Paperwork + and −

A1 a) 1182 − 22 = 1160 b) 1036 − 15 = 1021
c) 948 − 34 = 914 d) 4739 − 16 = 4723
e) 2815 − 25 = 2790 f) 4832 − 32 = 4800
A2 a) 6548 − 25 = 6523 b) 5238 − 34 = 5204

B1 a) 312 + 6 = 318 b) 125 + 19 = 144
c) 633 + 25 = 658 d) 3151 + 37 = 3188
e) 645 + 44 = 689 f) 4203 + 29 = 4232
B2 a) 2725 + 35 = 2760 b) 2065 + 11 = 2076

Page 9 - Adding - Carrying

A1 a) 12 + 40 + 900 + 13 000 + 50 000 = 63 952
b) 11 + 150 + 600 + 11 000 + 40 000 = 51 761
c) 16 + 90 + 1200 + 13 000 + 30 000 = 44 306
d) 7 + 70 + 1100 + 10 000 + 90 000 = 101 177
A2 a) 72 327 b) 99 842 c) 71 803 d) 65 048
A3 a) 19 208 km b) 68 449 people

Page 10 - Subtracting - Decomposition

A1 a) (3000 + 1200 + 40 + 16) − (2000 + 300 + 30 + 8)
Ans 1918
b) (5000 + 1200 + 100 + 12) − (1000 + 700 + 40 + 6)
Ans 4566
A2 a) 2917 b) 773 c) 33 285 d) 16 809
A3 a) 16 + 45 = 61 more girls b) 57 951

Page 11 - Multiplication Facts

A1 a) topline 15, 40, 45 middle line 21, 56, 63
bottom line 6, 16, 18
b) topline 36, 63, 72 middle line 16, 28, 32
bottom line 24, 42, 48
A2 possible answers :
a) 2 x 9 and 3 x 6 b) 4 x 6 and 3 x 8
c) 6 x 6 and 4 x 9 d) 3 x 4 and 2 x 6
e) 5 x 6 and 3 x 10

B1 a) 180 b) 50 c) 106 d) 122
e) 168 f) 152 g) 54 h) 416
i) 690 j) 194
B2 a) 24 b) 33 c) 47 d) 55
e) 422 f) 350 g) 380 h) 382
i) 450 j) 493

C1 a) 7 b) 9 c) 8 d) 5
C2 a) 6 b) 2 c) 3 d) 8
C3 a) 24 b) 17
D1 a) 3 R 2 b) 4 R 5 c) 8 R 5 d) 6 R 0
D2 a) R 0 b) R 1 c) R 2 d) R 4
e) R 3 f) R 3

Page 12 - Multiplication Strategies 1

A1 a) No b) 30
A2 a) 20 x 7 = 140 b) 8 x 9 = 72
c) 50 x 3 = 150 d) 8 x 30 = 240
e) 2 x 72 = 144 f) 10 x 21 = 210
g) 6 x 20 = 120

B1 a) 12 x 100 = 1200 b) 42 x 100 = 4200
c) 6 x 1000 = 6000 d) 24 x 1000 = 24 000
B2 a) 4000 b) 1800 c) 21 000 d) 8 000
e) 420 000

C1 a) $\frac{1}{2}$ of 840 = 420 b) $\frac{1}{2}$ of 720 = 360
c) 215 d) 1400 e) 1700 f) 1050
C2 a) 145 b) 700 c) 1600 d) 315
e) 4600 f) 1350

Page 13 - Multiplication Strategies 2

A1 a) 2 x 26 = 52 b) 23 x 100 = 2300
c) 6 x 30 = 180 d) 9 x 70 = 630
A2 a) 300 x 4 = 1200 b) 2 x 44 = 88
c) 90 x 8 = 720 d) 50 x 6 = 300
A3 a) 450 b) 42 c) 64 d) 360
e) 210 f) 230 g) 900 h) 1400

B1

Across	Down
1. 360	1. 320
3. 162	2. 64
6. 24	4. 65
8. 56	5. 265
9. 144	7. 54 000
11. 72 000	9. 125
13. 500	10. 400
15. 48	12. 542
17. 85	14. 750
18. 210	16. 81
19. 240	17. 84

Pages 14 - Multiplication Strategies 3

A1 a) (4 x 50) + (4 x 4) = 200 + 16 = 216
b) 360 + 18 = 378 c) 500 − 20 = 480
d) 480 − 8 = 472 e) 280 − 14 = 266
f) 320 + 32 = 352 g) 630 + 18 = 648
A2 a) 240 + 18 = 258 b) 270 − 12 = 258
c) 400 − 10 = 390 d) 350 − 21 = 329
e) 450 + 36 = 486 f) 320 − 8 = 312
g) 420 + 35 = 455

B1 a) (3 x 49) x 10 = (150 − 3) x 10 = 1470
b) (120 + 24) x 10 = 1440 c) (140 − 14) x 10 = 1260
d) (560 + 24) x 10 = 5840 e) (270 − 18) = 2520
f) (360 − 6) x 10 = 3540 g) (320 + 16) x 10 = 3360
B2 a) half of 6700 = 3350
b) (99 x 8) x 10 = (800 − 8) x 10 = 7920
c) (8 x 48) x 10 = (400 − 16) x 10 = 3840
d) (180 + 24) x 10 = 2040 e) 50 x 9 = 450
f) (350 + 42) x 10 = 3920 g) (450 − 9) x 10 = 4410

Page 15 - Understanding Division

A1 350 ÷ 5 = 70 000; Each person gets $70 000.
A2 27000 ÷ 30 = 900; He plants 900 shrubs per hectare.

B1 54000 ÷ 600 = 9; 9 people shared the prize.
B2 12000 ÷ 200 = 60; 60 hectares will be planted.

C1 a) 8000 b) 5 c) 600 d) 40
e) 6 f) 500 g) 9300 h) 40
i) 7

Pages 16 - Division Strategies

A1 a) (800 + 40 + 16) ÷ 4 = 200 + 10 + 4 = 214
b) (300 + 60 + 12) ÷ 6 = 50 + 10 + 2 = 62
c) (500 + 350 + 35) ÷ 5 = 100 + 70 + 7 = 177
d) (600 + 240 + 12) ÷ 3 = 200 + 80 + 4 = 284
e) (400 + 320 + 32) ÷ 4 = 100 + 80 + 8 = 188
f) (3200 + 320 + 40) ÷ 8 = 400 + 40 + 5 = 445
g) (4200 + 210 + 7) ÷ 7 = 600 + 30 + 1 = 631
h) (9000 + 630 + 45) ÷ 9 = 1000 + 70 + 5 = 1075

B1 a) (216 ÷ 3) ÷ 4 = 72 ÷ 4 = 18
b) (832 ÷ 4) ÷ 4 = 208 ÷ 4 = 52
c) (924 ÷ 3) ÷ 7 = 308 ÷ 7 = 44
d) (1800 ÷ 3) ÷ 5 = 600 ÷ 5 = 120

B2 a) (3720 ÷ 10) ÷ 4 = 372 ÷ 4 = 93
b) (19500 ÷ 100) ÷ 5 = 195 ÷ 5 = 39
c) (8760 ÷ 10) ÷ 12 = 876 ÷ 12 = 73