

NEW WAVE
NUMBER AND ALGEBRA (YEAR 2)
STUDENT WORKBOOK ANSWERS

N&PV – 1

Page 2 Skip counting in 2s and 3s

1. 18 2. 29 3. 27 4. 15 5. 20

Page 3 Skip counting in 5s

1. 29 2. 47 3. 58

Page 4 Count on in 10s

1. (a) 45, 65
 (b) 28, 38, 48, 68, 78
 (c) 56, 66, 76, 86, 106, 116
 (d) Answers will vary

Page 5 120 challenge

Answers will vary. Teacher check

Pages 6–7 Coloured count back

1. 94, 89, 84, 79, 74, 69, 64, 59, 54, 49, 44, 39, 34, 29, 24, 19, 14, 9, 5
 2. 85, 83, 81, 79, 77, 75, 73, 71, 69, 67, 65, 63, 61, 59, 57, 55, 53, 51, 49, 47, 45, 43, 41, 39, 37, 35, 33, 31, 29, 27, 25, 23, 21, 19, 17, 15, 13, 11, 9, 7, 5, 3, 1
 3. 67, 64, 61, 58, 55, 52, 49, 46, 43, 40, 37, 34, 31, 29, 26, 23, 20, 17, 14, 11, 8, 5, 2
 4. 52, 48, 44, 40, 36, 32, 28, 24, 20, 16, 12, 8, 4
 5. 119, 109, 99, 89, 79, 69, 59, 49, 39, 29, 19, 9

Page 8 Don't skip these questions

1. 18 2. 120 3. 24

Teacher check diagrams

Page 9 Leaping the line

1. 20, 23, 26, 29, 32, 35
 2. 44, 49, 54, 59
 3. 78, 76, 74, 72, 70, 68, 66, 64, 62, 60, 58, 56, 54, 52, 50
 4. 119, 116, 113, 110, 107, 104, 101

Page 10 Clue detective

1. 13 2. 65 3. 70 4. 100 5. 66
 6. 13 7. 14 8. 97 9. 120 10. 87
 11. 24

N&PV – 2

Page 11 Order! Order!

1. (a) 101, 287, 450, 523, 532, 945
 (b) 99, 369, 399, 455, 873, 978
 (c) one hundred and twenty-one, four hundred and fifty-six, six hundred and thirty-nine, eight hundred

- (d) three hundred and ninety-nine, five hundred and seventy-two, seven hundred and one, nine hundred and forty

Challenge: 999, 1983, 2011, 2050, 3496, 4500

Page 12 How tall am I?

Glenn 195 cm, Cliff 182 cm, Janet 178 cm, Sharyn 159 cm, Mohammad 152 cm, Billy 145 cm, Carla 129 cm

Page 13 What number am I?

1. 903 2. 1023 3. 516
 4. Possible answers: 321, 123, 231, 213, 132, 312, 303, 330, 420, 240, 204, 222, 402, 501, 105, 150, 510, 600
 5. 991, 993, 995, 997, 999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019
 6. 806, 816, 826, 836, 846, 856, 866, 876, 886, 896, 906, 916, 926, 936, 946

Page 14 Place the digits – 1

1. 359, 395, 539, 593, 935, 953

Page 15 Place the digits – 2

2. 3059, 3095, 3509, 3905, 3590, 3950, 5039, 5093, 5903, 5309, 5930, 5390, 9530, 9350, 9053, 9035, 9503, 9305

Page 16 Make the biggest number you can! – 1

Answers will vary. Teacher check

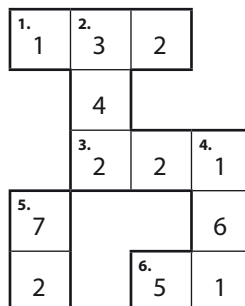
Page 17 Make the biggest number you can! – 2

Answers will vary. Teacher check

Page 18 A magician's trick

1. $982 = 900 + 80 + 2$ 2. 590, 469, 991

Page 19 Cross number



Page 20 MAB match

Teacher check

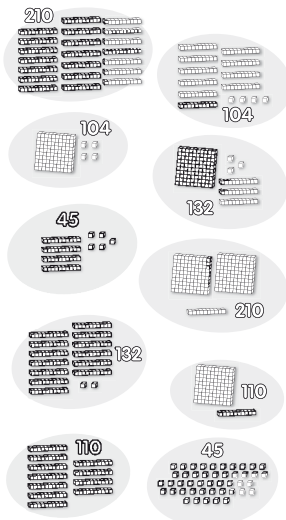
N&PV – 3

Page 21 100 ways to make 100?

Answers will vary. Teacher check

Page 22 Matching numbers

Teacher check



Page 23 Matching numbers – Take 2

- 62 tens, 620, 6 hundreds and 2 tens
78 tens and 2 ones, 7 hundreds and 82 ones, 782
50 tens, 500, 5 hundreds
12 tens 9 ones, 129, 1 hundred and 29 ones
100 tens and 3 ones, 1 thousand and 3 ones, 1003
95 tens and 8 ones; 958; 9 hundred, 5 tens and 8 ones
- Answers will vary. Teacher check

Page 24 A different way

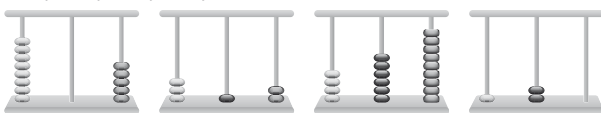
- (a) 12 tens and 1 ones = 1 hundred, 2 tens and 1 ones
(b) 10 tens and 5 ones = 1 hundred, 0 tens and 5 ones
(c) 13 tens and 8 ones = 1 hundred, 3 tens and 8 ones
(d) 6 hundreds, 3 tens and 4 ones
(e) 7 hundreds, 8 tens and 3 ones
(f) 9 hundreds, 0 tens and 9 ones
(g) 5 hundreds, 4 tens and 0 ones

Page 25 Make your own numbers

Answers will vary. Teacher check

Page 26 Be an abacist

- 450, 307, 981, 345, 100



-
-
- Answers will vary. Teacher check

N&PV – 4

Page 27 Part and part makes whole

- Teacher check

Page 28 Frog families

- 7 + 5 = 12
5 + 7 = 12
12 – 5 = 7
12 – 7 = 5

Page 29 Your turn

Teacher check

Pages 30–31 Magic triangles

- 5 + 9 = 14
9 + 5 = 14
14 – 5 = 9
14 – 9 = 5
- 4 + 8 = 12
8 + 4 = 12
12 – 4 = 8
12 – 8 = 4

3.–4. Answers will vary. Teacher check

Pages 32–33 Clever thinking

- (a) 13 (b) 18 (c) 75
(d) 71 (e) 6 (f) 22

Page 34 Missing numbers

- (a) 14 (b) 16 (c) 19 (d) 17
(e) 13 (f) 27 (g) 65 (h) 5
(i) 65 (j) 15 (k) 12 (l) 30
(m) 30 (n) 32

Page 35 Fact family find

Answers will vary. Teacher check

N&PV – 5

Page 36 Make 10 search

1.

2	7	3	4	5	6	4	5	5	8
8	4	4	6	8	9	1	7	1	2
0	6	5	3	2	2	8	10	9	0
10	9	1	5	4	6	6	0	7	3
1	5	9	6	7	4	6	5	5	3
8	9	8	3	4	10	1	8	7	2
0	9	6	8	0	9	2	0	3	1

- 1 + 9, 2 + 8, 3 + 7, 4 + 6, 5 + 5, 10 + 0

Page 37 Brilliant bridging

- Teacher check workings.
(a) 11 (b) 12 (c) 11 (d) 11
- (a) 2 + 8 + 1 = 11 (b) 9 + 1 + 1 = 11
(c) 6 + 4 + 3 = 13 (d) 9 + 1 + 3 = 13
(e) 8 + 2 + 3 = 13

Page 38 Double trouble

Answers will vary. Teacher check

Page 39 Super double trouble

- 6, 12 11, 22 7, 14 8, 16
15, 30 12, 24 10, 20 9, 18
13, 26 16, 32 14, 28
- Answers will vary. Teacher check

Page 40 Add 10

Answers will vary. Teacher check

Page 41 Subtract 10

Answers will vary. Teacher check

Page 42 Rearranged numbers

1. (a) $9 + 1 + 2 + 2 = 14$ (b) $8 + 8 + 7 + 7 = 30$
 (c) $12 + 12 + 5 + 4 = 33$ (d) $6 + 6 + 6 + 5 = 23$
 (e) $6 + 4 + 5 + 1 = 16$ (f) $9 + 1 + 1 + 4 = 15$

Page 43 Easy adding

Answers will vary. Teacher check

Page 44 Problem parts


1. 10, 10 2. \$23 3. 42 4. 44 5. 8


Page 45 Near doubles

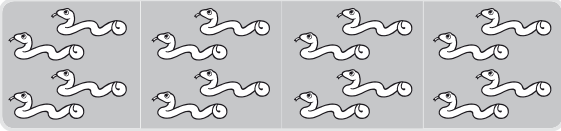
1. (a) 9 (b) 13
 2. (a) $8 + 8 + 1 = 17$ (b) $9 + 9 + 1 = 19$
 (c) $3 + 3 + 1 = 7$

N&PV – 6

Page 46 Draw and solve

1. 12 

2. 30 

3. 16 

4. Answers will vary. Teacher check

Page 47 Puzzling problems

Teacher check workings.

1. 15 2. 42 3. 36 4. 8

Page 48 Building blocks

1. 18 2. 20 3. 18
 4. Answers will vary. Teacher check

Page 49 Counter count

1. 1 group of 24
 2 groups of 12
 3 groups of 8
 8 groups of 3
 4 groups of 6
 6 groups of 4
 12 groups of 2
 24 groups of 1


Challenge: Teacher check


Page 50 Hurray for arrays!

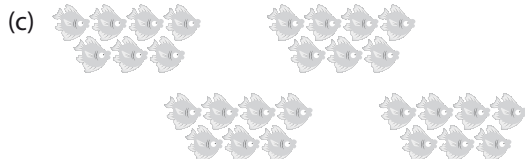
1. Teacher check workings.

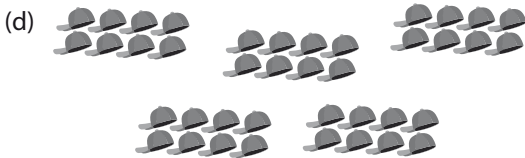
- (a) 15 (b) 24 (c) 32


Page 51 Matching multiplication


(a)  (iii) $3 \times 5 = 3$ groups of 5


(b)  (i) $6 \times 3 = 6$ groups of 3

(c)  (vi) $4 \times 7 = 4$ groups of 7

(d)  (v) $5 \times 8 = 5$ groups of 8

(e)  (ii) $9 \times 2 = 9$ groups of 2

(f)  (iv) $3 \times 10 = 3$ groups of 10

(g)  (vii) $2 \times 4 = 2$ groups of 4

Page 52 Match the product

1. (a) $5 \times 5 = 25$ (b) $4 \times 6 = 24$ (c) $4 \times 4 = 16$
 (d) $2 \times 9 = 18$ (e) $3 \times 9 = 27$ (f) $3 \times 8 = 24$
 (g) $2 \times 12 = 24$ (h) $4 \times 3 = 12$ (i) $6 \times 5 = 30$
 (j) $10 \times 3 = 30$ (k) $3 \times 3 = 9$ (l) $8 \times 2 = 16$

Page 53 Grappling with 'groups of'

1. (a) $3 \times 6 = 18$ (b) $4 \times 5 = 20$ (c) $7 \times 3 = 21$

(d) $6 \times 4 = 24$ (e) $8 \times 4 = 32$

N&PV – 7

Page 54 Share and share alike

1. 6 2. 7 3. 4

Page 55 Even Steven

1. 4 2. 5 3. 3

Page 56 Rain clouds

1. (a) 5 (b) \$3 (c) 2 (d) 9
 (e) 20 (f) 12


Page 57 Fair share

Answers will vary. Teacher check

Page 58 That's not right!

Answers that should be circled:

$21 \div 3 = 7$ $30 \div 3 = 11$ $7 \div 2 = 4$
 $14 \div 6 = 4$ $20 \div 5 = 4$ $15 \div 3 = 5$
 $24 \div 3 = 8$ $12 \div 6 = 2$ $25 \div 5 = 5$
 $9 \div 3 = 3$ $28 \div 7 = 3$ $50 \div 10 = 5$
 $12 \div 4 = 3$ $8 \div 2 = 5$ $8 \div 2 = 4$
 $6 \div 3 = 2$ $22 \div 2 = 11$ $20 \div 4 = 5$
 $12 \div 4 = 4$ $40 \div 3 = 10$ $6 \div 2 = 3$
 $80 \div 9 = 9$ $100 \div 10 = 10$ $34 \div 9 = 4$
 $42 \div 3 = 12$ $72 \div 8 = 9$



Page 59 Dividing my own division

Answers will vary. Teacher check

F&D – 1

Page 60 How many in a half?

- ♂♂♂♀♀♀
- ♂♂♂♂♂♀♀♀♀♀
- ♂♂♂♂♂♂♂♀♀♀♀♀♀♀
- ♂♂♂♂♂♂♂♂♂♂♂♀♀♀♀♀♀♀♀♀♀♀♀♀♀

Page 61 Food fractions

Teacher check

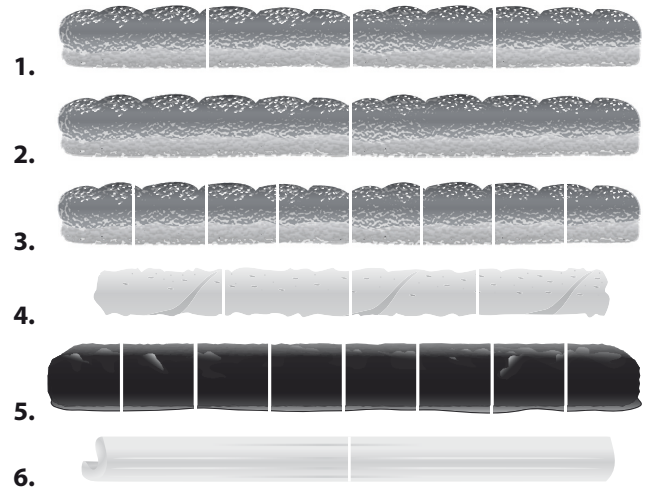
Page 62 Crazy pizza

Answers will vary. Teacher check

Page 63 What fraction is this?

1. (a) $\frac{1}{2}$ (b) $\frac{1}{2}$ (c) $\frac{1}{2}$ (d) $\frac{1}{8}$
 (e) $\frac{1}{8}$ (f) $\frac{1}{2}$ (g) $\frac{1}{4}$

Page 64 Break the bread



Page 65 At the fair

1. 5 2. 8 3. 3 4. 2

M&FM – 1

Page 66 How much?

- $2 \times 10c = 1 \times 20c$
 $2 \times 5c = 1 \times 10c$
 $2 \times 50c = 1 \times \1
 $2 \times \$1 = 1 \times \2
 $2 \times 20c + 1 \times 10c = 1 \times 50c$
 $2 \times \$2 + 1 \times \$1 = 1 \times \$5$
 $2 \times \$5 = 1 \times \10
 $2 \times \$50 = 1 \times \100

Page 67 One dollar

1. Answers can include:
 $1 \times \$1$
 $2 \times 50c$
 $5 \times 20c$
 $10 \times 10c$
 $20 \times 5c$
 $1 \times 50c, 2 \times 20c, 1 \times 10c$
 $4 \times 20c, 2 \times 10c$
 $9 \times 10c, 2 \times 5c$
 $18 \times 5c, 1 \times 10c$
 Others answers may be acceptable

Page 68 The Tasty Tuckshop

1. Answers may vary. Exact amount purchases are in bold.
 (a) chocolate frog, **apple**
 (b) chocolate frog, **popcorn**, apple

- (c) chocolate frog, popcorn, apple, banana chips, carrot and celery sticks, **cheese and lettuce sandwich**, yogurt, rice crackers and dip
- (d) chocolate frog, popcorn, apple, **carrot and celery sticks**
- (e) chocolate frog, popcorn, apple, banana chips, carrot and celery sticks, cheese and lettuce sandwich, **quiche**, yogurt, rice crackers and dip
- (f) chocolate frog, popcorn, apple, **banana chips**, carrot and celery sticks
- (g) chocolate frog, popcorn, apple, banana chips, carrot and celery sticks, **yogurt**
- (h) chocolate frog, popcorn, apple, banana chips, carrot and celery sticks, yogurt, **rice crackers and dip**

Page 69 Money caterpillars

1. (a) \$3.20 (b) \$5.30 (c) \$7.30 (d) \$13.00
2. Answers will vary. Teacher check

Page 70 Moneyland!

1. (a) \$8.45 (b) \$3.35 (c) 40c (d) 50c (e) \$25
2. Teacher check

Page 71 Pocket money

1. \$6
2. \$8.20
3. \$3.00
4. Answers will vary. Teacher check

P&A – 1

Page 72 Odd or even?

1. (a) 16, 18 – even (b) 17, 19 – odd (c) 18, 16 – even (d) 63, 65 – odd (e) 20, 24 – even (f) 76, 74 – even
- 2.–4. Answers will vary. Teacher check

Page 73 Show the pattern

1. Number line
 - (a) +3, +2, +3
 - (b) -4
 - (c) -5
 - (d) -3
2. Pattern

Page 74 Pattern detective

1. (a) +1 (b) +4 (c) -2 (d) +2 (e) -3 (f) -5
2. Answers will vary. Teacher check

Page 75 Patterns on a number chart

Answers will vary. Teacher check

Page 76 Seesaw balance

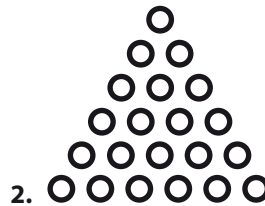
1. (a) 13 (b) 400 (c) 35 (d) 48 (e) 9 (f) 13 (g) 10 (h) 14

Page 77 Seesaws 2

Answers will vary. Teacher check

Page 78 What's happening?

1. Each time you add another base to the triangle, there is one more circle than the base above.



- 2.
3. It is counting by 2s.
4. 40

P&A – 2

Page 79 Word problem match

Susan had four swap cards and Angus had three. How many did they have altogether?	4 + 3 = 7 Teacher check drawing
Justin had fifteen pencils. He then lost five pencils. How many pencils does he now have?	15 - 5 = 10 Teacher check drawing
Maria ate seven grapes. She started with ten. How many has she got left?	10 - 7 = 3 Teacher check drawing
Kye had fifteen books. He got five more for his birthday. How many does he now have?	15 + 5 = 20 Teacher check drawing
Mohammad had four jelly snakes. He ate three of them. How many did he have left?	4 - 3 = 1 Teacher check drawing
Tamika collected ten flowers from her garden on Monday. She collected seven more on Tuesday. How many flowers does she now have?	10 + 7 = 17 Teacher check drawing

Page 80 What's the number sentence?

1. $12 - 4 = 8$
2. $5 + 2 = 7$
3. $8 + 4 = 12$
4. $11 - 6 = 5$

Page 81 My own word problems

Teacher check word problems

1. 15
2. 4
3. 3
4. 13
5. 9

Page 82 Food word problems

1. $19 - 7 = 12$
2. $17 - 10 = 7$
3. $2 + 2 = 4$
4. $21 - 5 = 16$
5. $12 - 3 = 9$

Teacher check drawings