

Pupil's Book Answers

1. Look Back

Page 2

- a) 12 b) 17 c) 18
d) 24 e) 24 f) 30 g) 54
h) 58 i) 9 j) 19 k) 29
l) 39 m) 49
- a) 42 b) 25 c) 23
d) 99 e) 92 f) 34
g) 15
- 143 44
- 10
- 3

Page 3

- a) 15, 18, 21
b) 28, 32, 36 c) 30, 36
- a) 3:00 b) 3:30
- a) triangle b) oval
c) rectangle d) square
e) circle f) semicircle
- a) cuboid b) cylinder
c) cube d) cone e) sphere
- 53
- 81
- metre
- gram

Page 4

- a) ___ b) ___ c) more
- most likely the microwave oven
-
-
- €3.88

Favourite Pets

- 9
- 8
- 5
- 1
- 3
- Dog
- Bird
- 6
- 4
- 20

2. Place Value

Page 5

- a) 250 b) 124
- a) 417 b) 456 c) 213
d) 503

Page 6

- a), b), c) and d): Teacher check
- a), b), c) and d): Teacher check

Place Value Activity

- a) One hundred and twenty-three
b) Five hundred and ninety-seven
c) Two hundred and five
d) Nine hundred and ninety
e) Six hundred and seventy-eight
f) Three hundred and fourteen
g) Seven hundred and eighty-one

Page 7

- a) 745
b) 317
c) 892
d) 955
e) 111
f) 420
g) 604

Puzzler = 425

- a) 7 hundreds + 6 tens + 5 units or $700 + 60 + 5 = 765$
b) 2 hundreds + 0 tens + 9 units or $200 + 0 + 9 = 209$
c) 9 hundreds + 3 tens + 3 units or $900 + 30 + 3 = 933$
d) 1 hundred + 9 tens + 2 units or $100 + 90 + 2 = 192$
e) 8 hundreds + 7 tens + 4 units or $800 + 70 + 4 = 874$

- f) 1 hundred + 2 tens + 0 units or $100 + 20 + 0 = 120$
g) 0 hundreds + 1 ten + 7 units or $0 + 10 + 7 = 17$

Numbers on the Number Line

Page 8

- a) Teacher check
b) 198, 200, 203, 207
- a) Teacher check
b) 596, 599, 601, 605

Looking at the Value of Each Digit

- a) Six tens = 60
b) Two hundreds = 200
c) Nine hundreds = 900
d) Eight tens = 80
e) Two units = 2
f) Zero units = 0
g) Zero tens = 0
h) Five tens = 50
i) Nine hundreds = 900
j) Three units = 3
k) Four hundreds = 400
l) Four tens = 40
m) Zero units = 0
n) Zero units = 0
o) Zero tens = 0

Rounding Numbers

Page 9

- a) 60 b) 40 c) 70
d) 10 e) 50 f) 20
g) 10 h) 30 i) 60
j) 100 k) 100 l) 160
m) 140 n) 650 o) 840
p) 460

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- a) 200 b) 600 c) 900
d) 200 e) 900 f) 100
g) 200 h) 400 i) 300
j) 400 k) 500 l) 500
m) 600 n) 700 o) 900
p) 100

4. a) 5 hundreds + 9 tens + 4 units + 8 tenths Or $500 + 90 + 4 + 0.8 = 594.8$
 b) 1 hundred + 0 tens + 7 units + 5 tenths Or $100 + 0 + 7 + 0.5 = 107.5$
 c) 2 hundreds + 8 tens + 0 units + 1 tenth Or $200 + 80 + 0 + 0.1 = 280.1$
 d) 7 hundreds + 0 tens + 8 units + 8 tenths Or $700 + 0 + 8 + 0.8 = 708.8$
 e) 3 hundreds + 0 tens + 0 units + 6 tenths Or $300 + 0 + 0 + 0.6 = 300.6$

Page 11 Word Problems

- €3.45
- €10 note
- Tom
- 20
- 700g

Homework

- a) 457 b) 536 c) 536 d) 607
- a), b), c), d) and e): Teacher check

Page 12

- a), b), c) and d): Teacher check
- a) Five hundred and forty-five
b) Nine hundred
- a) 425 b) 903 c) 241 d) 576
- a) 4 hundreds + 0 tens + 4 units or $400 + 0 + 4 = 404$
b) 8 hundreds + 1 ten + 7 units or $800 + 10 + 7 = 817$
c) 5 hundreds + 3 tens + 2 units or $500 + 30 + 2 = 532$
d) 9 hundreds + 6 tens + 9 units or $900 + 60 + 9 = 969$
- a) Teacher check
b) 619, 620, 622, 629.

Page 13

- a) 20 b) 40 c) 800 d) 3 e) 700 f) 0
- a) 60 b) 80 c) 40 d) 30 e) 40 f) 70
- a) 500 b) 300 c) 100 d) 700 e) 100 f) 400

3. Addition

Page 14

Rosie's score = 104

- a) 87 b) 49 c) 60 d) 68 e) 99 f) 98 g) 89 h) 80
- a) 91 b) 123 c) 72 d) 94 e) 105 f) 36 g) 105 h) 107
- a) 77 b) 79 c) 103
- a) 789 b) 899 c) 992 d) 999 e) 889 f) 699 g) 745

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- a) 966 b) 889 c) 999 d) 999

Adding Bigger Numbers (with regrouping)

Page 16

- a) 1001 b) 993 c) 822 d) 1041 e) 837 f) 1152 g) 1054
- a) 1065 b) 911 c) 957 d) 1321 e) 925 f) 902 g) 1032
- a) 922 b) 915 c) 837 d) 940

Page 17

Puzzler:

110	105	65	25	230	190	150
155	115	75	70	30	235	195
200	160	120	80	40	35	240
245	205	165	125	85	45	5
10	215	210	170	130	90	50
55	15	220	180	175	135	95
100	60	20	225	185	145	140

Page 18

- a) 78 b) 69 c) 101
- a) 79 b) 84 c) 182
- a) 372 b) 162 c) 813
- a) 872 b) 793 c) 948

Page 19 Word Problems

- 125
- 170
- 260
- 949
- 802
- Gráinne has the higher score of 78. Jason has a score of 70.

Homework

- a) 139 b) 96 c) 194 d) 834 e) 151 f) 960
- a) 618 b) 809 c) 1068 d) 1008 e) 899 f) 933 g) 942

Page 20

- a) 935 b) 1310 c) 957 d) 569
- a) 723 b) 953 c) 951 d) 522

5.

24	18	48
54	30	6
12	42	36

- a) 776 b) 639

7.

110	135	130
145	125	105
120	115	140

- 148

4. Subtraction

Page 21

There are 355 children left in the school after 1:30pm.

- a) 12 b) 6 c) 10 d) 13
e) 34 f) 24 g) 36 h) 12
- a) 35 b) 81 c) 22 d) 9
- a) 212 b) 211 c) 214
d) 332 e) 61

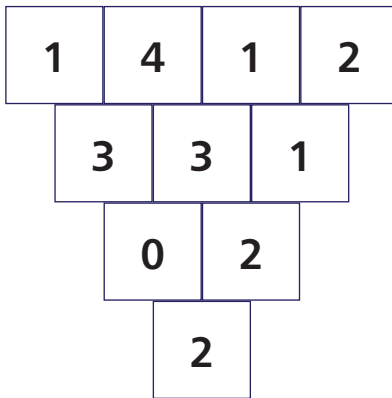
Subtracting Bigger Numbers (with renaming)

Page 23

- a) 99 b) 438 c) 469
d) 568 e) 189 f) 119
g) 201
- a) 467 b) 99 c) 9
d) 663

Page 24

Puzzler:



Page 25

- a) 31 b) 17 c) 67
- a) 50 b) 58 c) 32
- a) 38 b) 160 c) 244
- a) 319 b) 135 c) 277

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Word Problems

- 15
- 39
- 213
- 128
- 778
- a) 122 b) 67 c) 63
d) Answer = 265

Homework

- a) 21 b) 29 c) 504
d) 223 e) 14 f) 109
- 187

Page 27

- a) 501 b) 412 c) 111
d) 5 e) 44 f) 1 g) 179
- 129
- a) 88 b) 180 c) 85
d) 232
- 115
- a) 328 b) 96 c) 288
- 123

5. Chance

Page 28

- a) Possible, Impossible, Might, Not sure
b) Certain
c) Impossible
d) Possible, Might, Not sure

Page 29

- a) Unlikely b) Very unlikely
c) Very likely d) Very likely
- a) 1: It will rain purple bananas today.
2: I will see a rainbow this week.
3: I will use a computer today.
4: We will get homework tonight
- b) 1: I will meet the President today.
2: We will go on a school outing this month.
3: I will travel by car sometime this week.
4: I will eat today.

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Puzzler: Put 1 green marble in one bowl and leave 49 green and 50 red marbles in the other bowl. This way if the teacher chooses the bowl with the green marble you will definitely choose a green marble. If the teacher chooses the

other bowl you have an *almost* 50:50 chance of choosing a green marble.

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Something To Think About

Suggested answers (but other answers may also be acceptable):

- a) I would put the ladder against the tree.
b) I would move the small child away from the edge of the pond.
c) I would help the boy carry the ladder.
d) I would clear away the broken glass.
e) I would not try to jump off the roof of the house and fly!
f) I would put away the sleigh and the skis.

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Homework

- a) Certain b) Possible
c) Certain d) Possible
e) Impossible f) Certain
g) Impossible h) Possible
- a) 1 b) 3 c) 2
- a) 1 b) 3 c) 2
- a) ___ b) Equal chance
c) 1c/2c/5c/10c/20c/50c

6. Multiplication 1

Page 36

- 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100
- a) 4, 6, 8, 10, 12 b) 6
c) 6
- 14

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1. $6. 2 + 2 + 2 = 6$ $3 \times 2 = 6$
 2. a) $5 \times 2 = 10$ b) $4 \times 2 = 8$
 c) $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 8 \times 2 = 16$
 d) $2 \times 2 = 4$ e) $9 \times 2 = 18$
 3. a) 6 b) 4 c) 14 d) 20
 e) 18 f) 10 g) 12 h) 16
 i) 0 j) 2
 4. a) 8 b) 12 c) 10 d) 16
 e) 4 f) 6 g) 14
 5. 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100

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6. 4. 8. 12. 16. 20. 24
 7. 16
 8. a) 4 b) 6 c) 24
 9. a) 7 b) $7 \times 4 = 28$
 c) $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 7 \times 4 = 28$
 10. a) $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 40$
 b) $10 \times 4 = 40$

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Puzzler: Answer = 384

11. a) $4 + 4 + 4 = 3 \times 4 = 12$
 b) $8 \times 4 = 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 32$
 c) $1 \times 4 = 4$ d) $4 + 4 = 8$
 e) $5 \times 4 = 20$
 12. a) $9 \times 4 = 36$
 b) $6 \times 4 = 24$
 13. a) 28 b) 40 c) 0
 d) 16 e) 4 f) 12

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Counting in 8s

1. 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96
 2. 80
 3. a) 8 b) 48
 4. a) 40 b) 24 c) 72 d) 16
 e) 80 f) 32 g) 64 h) 56
 5. a) $8 + 8 + 8 + 8 = 32$
 b) $8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 56$ c) $8 + 8 + 8 = 24$
 d) $8 + 8 + 8 + 8 + 8 = 40$

6.

x	0	1	2	3	4	5	6	7	8	9	10
8	0	8	16	24	32	40	48	56	64	72	80

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7. a) $3 \times 8 = 24$ b) $6 \times 8 = 48$ c) $8 + 8 + 8 + 8 + 8 = 40$
 d) $8 + 8 + 8 + 8 = 32$
 8. a) 80 b) 64 c) 8 d) 72

Crossword

Across: 1. Sixty-four 6. Zero 7. Two 9. Forty-eight
 10. Twenty-four

Down: 1. Sixteen 2. Twelve 3. Four 4. Eighty 5. Eight
 6. Zero 8. Ten 9. Forty

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Homework

1.

x	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20

2. $6 \times 2 = 12$
 3. a) $3 \times 2 = 6$ b) $7 \times 2 = 14$
 4. a) 12 b) 2 c) 6 d) 16 e) 20 f) 0 g) 4 h) 8 i) 10
 j) 14
 5. a) 18 b) 2 c) 12 d) 4 e) 8 f) 16 g) 10
 7.

x	0	1	2	3	4	5	6	7	8	9	10
4	0	4	8	12	16	20	24	28	32	36	40

8. a) $4 + 4 + 4 + 4 + 4 = 5 \times 4 = 20$ b) $3 \times 4 = 12$
 9. a) 24 b) 8 c) 12 d) 36 e) 16 f) 28 g) 0

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11.

x	0	1	2	3	4	5	6	7	8	9	10
8	0	8	16	24	32	40	48	56	64	72	80

12. $8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 8 \times 8 = 64$
 13. $3 \times 8 = 24$
 14. 32, 40, 48, 56, 64, 72, 80
 15. 80c
 16. 40
 17. 72
 18. a) $6 + 6 + 6 + 6 = 24$ b) $4 \times 6 = 24$
 20. 36
 21. $8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 72$

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22. a) 24 b) 48 c) 192

7. Division 1

Page 45

$$8 \div 4 = 2$$

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- a) 6 b) $12 \div 2 = 6$
- a) 3 b) $6 \div 2 = 3$
- a) 9 b) $18 \div 2 = 9$
- a) 5 b) 7 c) 4 d) 8
e) 2 f) 10 g) 1 h) 3
i) 6
- 9, $18 \div 2 = 9$

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Repeated subtraction

- $10 - 2 = 8 - 2 = 6 - 2 = 4 - 2 = 0$. So $10 \div 2 = 5$
- $12 - 2 = 10 - 2 = 8 - 2 = 6 - 2 = 4 - 2 = 2 - 2 = 0$.
So $12 \div 2 = 6$
- a) $4 \div 2 = 2$
b) $18 \div 2 = 9$
c) $10 \div 2 = 5$
d) $20 \div 2 = 10$
- 12c
- 16

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Dividing by 4

- a) 5 b) 5
- a) 3 b) $12 \div 4 = 3$
- $36 \div 4 = 9$. Each child will get 9 conkers.
- $28 \div 4 = 7$. Each plate will have 7 mushrooms.
- a) 3 b) 5 c) 8 d) 10
- a) 2 b) 4 c) 8 d) 7
e) 6 f) 5 g) 1 h) 10 i) 9

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Dividing by 8

- a) 2 b) 2
- a) 6 b) $48 \div 8 = 6$
- a) $64 \div 8 = 8$. Each child will get 8 marbles.
- $72 \div 8 = 9$. Each piggy bank will get 9c.
- a) 5 b) 1 c) 4 d) 7
- a) 3 b) 5 c) 8 d) 2
e) 6 f) 1 g) 9 h) 4
i) 10

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Division and Multiplication

1.

x 2	÷ 2	x 4	÷ 4	x 8	÷ 8
$1 \times 2 = 2$	$2 \div 2 = 1$	$1 \times 4 = 4$	$4 \div 4 = 1$	$1 \times 8 = 8$	$8 \div 8 = 1$
$2 \times 2 = 4$	$4 \div 2 = 2$	$2 \times 4 = 8$	$8 \div 4 = 2$	$2 \times 8 = 16$	$16 \div 8 = 2$
$3 \times 2 = 6$	$6 \div 2 = 3$	$3 \times 4 = 12$	$12 \div 4 = 3$	$3 \times 8 = 24$	$24 \div 8 = 3$
$4 \times 2 = 8$	$8 \div 2 = 4$	$4 \times 4 = 16$	$16 \div 4 = 4$	$4 \times 8 = 32$	$32 \div 8 = 4$
$5 \times 2 = 10$	$10 \div 2 = 5$	$5 \times 4 = 20$	$20 \div 4 = 5$	$5 \times 8 = 40$	$40 \div 8 = 5$
$6 \times 2 = 12$	$12 \div 2 = 6$	$6 \times 4 = 24$	$24 \div 4 = 6$	$6 \times 8 = 48$	$48 \div 8 = 6$
$7 \times 2 = 14$	$14 \div 2 = 7$	$7 \times 4 = 28$	$28 \div 4 = 7$	$7 \times 8 = 56$	$56 \div 8 = 7$
$8 \times 2 = 16$	$16 \div 2 = 8$	$8 \times 4 = 32$	$32 \div 4 = 8$	$8 \times 8 = 64$	$64 \div 8 = 8$
$9 \times 2 = 18$	$18 \div 2 = 9$	$9 \times 4 = 36$	$36 \div 4 = 9$	$9 \times 8 = 72$	$72 \div 8 = 9$
$10 \times 2 = 20$	$20 \div 2 = 10$	$10 \times 4 = 40$	$40 \div 4 = 10$	$10 \times 8 = 80$	$80 \div 8 = 10$

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- a) 2×12 or 3×8 or 4×6 or 6×4 or 8×3 or 12×2 .
b) Inverse of previous choice
- a) 2×8 or 4×4 or 8×2 b) Inverse of previous choice
- a) $2 \times 7 = 14$, $7 \times 2 = 14$, $14 \div 2 = 7$, $14 \div 7 = 2$
b) $4 \times 8 = 32$, $8 \times 4 = 32$, $32 \div 4 = 8$, $32 \div 8 = 4$
c) $8 \times 8 = 64$, $8 \times 8 = 64$, $64 \div 8 = 8$, $64 \div 8 = 8$
d) $4 \times 9 = 36$, $9 \times 4 = 36$, $36 \div 4 = 9$, $36 \div 9 = 4$

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Remainders

- $17 \div 4 = 4R1$
- $19 \div 8 = 2R3$
- a) 5R1 b) 3R3 c) 3R1 d) 3R1 e) 1R2 f) 5R2 g) 7R2
h) 9R1 i) 5R3

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Word Problems

- 6
- 6
- 12
- 8
- 12
- 11 minutes
- 2
- Four groups will be made and 4 children will not be in a group (4R4)
- 9R3
- 2R2

Homework

- a) 5 b) $10 \div 2 = 5$
- a) $8 \div 2 = 4$ b) $14 \div 2 = 7$

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3. 5c

4.

÷	2	4	6	8	10	12	14	16	18	20
2	1	2	3	4	5	6	7	8	9	10

5. a) 5 b) $20 \div 4 = 5$

6.

÷	4	8	12	16	20	24	28	32	36	40
4	1	2	3	4	5	6	7	8	9	10

7. a) 6 b) 3 c) 3 d) 4 e) 5 f) 10 g) 9 h) 11 i) 9

8. a) 2 b) $16 \div 8 = 2$

9.

÷	8	16	24	32	40	48	56	64	72	80
8	1	2	3	4	5	6	7	8	9	10

10. a) 3 b) 1 c) 7 d) 6 e) 4 f) 10

11. 8

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12. a) $12 \div 2 = 6$ and $6 \times 2 = 12$ b) $16 \div 4 = 4$ and $4 \times 4 = 16$
c) $64 \div 8 = 8$ and $8 \times 8 = 64$ d) $8 \div 2 = 4$ and $4 \times 2 = 8$

13. 7

14. a) 9 b) 9 c) 10 d) 2 e) 10 f) 2R1 g) 5R3
h) 7R1 i) 8R3 j) 6R2 k) 5R1 l) 8R1

15. 9R6

16. 5 cars (four cars with 4 and one car with 2)

9. Fractions 1

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1. a), b), c) and d): Teacher check

2. a) $\frac{1}{2}$ b) $\frac{1}{4}$ c) $\frac{3}{4}$

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Halves and Quarters

1. a) and b): Teacher check

2. a) 6 triangles. Teacher check b) 8 circles. Teacher check
c) 5 stars. Teacher check

3. a) $\frac{3}{4}$ b) $\frac{1}{2}$ c) $\frac{1}{4}$ d) $\frac{1}{2}$

4. a) 1 b) 5 c) 1 d) 2 e) 6 f) 4 g) 12 h) 5 i) 8
j) 1 k) 22 l) 28

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Eighths

1. a) and b) Teacher check

c) Red = $\frac{5}{8}$ Yellow = $\frac{3}{8}$
d) Blue = $\frac{1}{8}$ Green = $\frac{7}{8}$

2. a) Teacher check. 1 star

b) Teacher check. 10 hexagons

c) $\frac{2}{8}$ or $\frac{1}{4}$ d) $\frac{1}{4}$ or $\frac{2}{8}$

3. a) 2 b) 1 c) 4 d) 3

e) 5 f) 7 g) 10

Puzzler: I would like half of Jane's share because she has the most chocolate!

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Tenths

1. a), b) and c): Teacher check

d) Green = $\frac{6}{10}$ Red = $\frac{4}{10}$
e) Blue = $\frac{9}{10}$ Yellow = $\frac{1}{10}$

2. a) 6 triangles b) 18

squares c) $\frac{5}{10}$ or $\frac{1}{2}$

d) $\frac{5}{10}$ or $\frac{1}{2}$

3. a) 2 b) 8 c) 1 d) 4

e) 3 f) 7 g) 9 h) 10

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3. a) 2 b) 2 c) 4 d) 5

e) 6 f) 4 g) 4 h) 10

4. a) > b) > c) < d) =

e) = f) > g) < h) =

i) < j) <

5. a) $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}$ b) $\frac{3}{8}, \frac{5}{8}, \frac{3}{4}$

c) $\frac{4}{10}, \frac{3}{4}, \frac{8}{8}$

6. $\frac{3}{4} = 3$ rd artwork

$1 = \frac{2}{2}$

1st artwork = $\frac{1}{2}$

$\frac{5}{8} = 2$ nd artwork

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Word Problems

1. 1km

2. €5

3. 27

4. 12

5. a) No b) Jack

Fractions on the Number Line

Page 62

6. From left to right: $\frac{1}{8}, \frac{2}{8}, \frac{5}{10}, \frac{6}{10}, \frac{3}{4}, \frac{7}{8}$
7. a) $\frac{3}{4}, \frac{4}{4}$ or $\frac{2}{2}$ or 1 b) $\frac{4}{10}, \frac{5}{10}$ or $\frac{1}{2}$
c) $\frac{3}{8}, \frac{4}{8}$ or $\frac{1}{2}$
8. a) $\frac{1}{2}$ b) $\frac{1}{2}$ c) $\frac{7}{8}$

Homework

1. –
2. a) Circle 2 bananas
b) Circle 1 puppy
c) Circle 11 cars
d) Colour 1 section
e) Colour 2 circles
f) Colour 1 star

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3. a) $\frac{3}{4}$ b) $\frac{1}{4}$ or $\frac{2}{8}$ c) $\frac{9}{10}$
d) $\frac{3}{8}$
4. a) 16 b) 8 c) 5 d) 10
e) 1 f) 9 g) 8 h) 1
5. a) $\frac{4}{8}$ b) $\frac{2}{4}$ c) $\frac{1}{2}$ d) $\frac{2}{8}$
e) $\frac{5}{10}$ f) $\frac{8}{8}$ g) $\frac{4}{8}$ h) $\frac{10}{10}$
6. a) < b) = c) = d) <
e) > f) = g) > h) <
7. a) $\frac{1}{10}, \frac{1}{8}, \frac{1}{4}, \frac{1}{2}$ b) $\frac{1}{4}, \frac{5}{8}, \frac{9}{10}$
c) $\frac{3}{8}, \frac{3}{4}, \frac{2}{2}$
8. a) $\frac{2}{10}, \frac{3}{10}, (\frac{4}{10}), \frac{5}{10}, \frac{6}{10}$ b) $\frac{3}{8}$
c) $\frac{1}{4}, (\frac{1}{2}), \frac{3}{4}$
9. 9
10. a) 9 hours b) 21 hours

10. Multiplication 2

Page 64

$$6 \times 8 = 8 + 8 + 8 + 8 + 8 + 8$$

1. a) 12 b) 28 c) 36
d) 48 e) 4 f) 0 g) 20
h) 12 i) 32 j) 32 k) 0
l) 20 m) 16 n) 18
o) 16 p) 72 q) 4 r) 8
s) 14 t) 80
2. 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100

3. 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
4. $5 + 5 + 5 + 5 + 5 = 25$. $5 \times 5 = 25$

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5. a) $8 \times 5 = 40$ b) $5 \times 1 = 5$
6. a) $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$ b) $5 + 5 = 10$
c) $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 45$
7. €60
8. a) $5 + 5 + 5 + 5 + 5 + 5 = 6 \times 5 = 30$
b) (From left to right) 5, 15, 50, 10, 0, 40

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Counting in 10s

1. 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

Multiplying 10s

3. $10c + 10c + 10c + 10c + 10c + 10c + 10c + 10c = 8 \times 10c = 80c$
4. $10 + 10 + 10 + 10 + 10 = 5 \times 10 = 50$
- 5.

x	0	1	2	3	4	5	6	7	8	9	10
10	0	10	20	30	40	50	60	70	80	90	100

6. a) $10 + 10 + 10 + 10 + 10 + 10 + 10 = 70$ b) $7 \times 10 = 70$

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7. a) 70 b) 40 c) 80 d) 90 e) 100 f) 30 g) 20 h) 50
i) 60 j) 0
8. a) 10 b) 100 c) 0 d) 40 e) 20
f) (Note: text should read 6×10) $6 \times 10 = 60$

Times Tables

1. a) 12 b) 35 c) 32 d) 60 e) 8 f) 0 g) 0 h) 45
i) 16 j) 12 k) 80 l) 40 m) 10 n) 4 o) 48 p) 45
q) 24

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Puzzler: Answer = 85

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Word Problems

1. 16
2. 128 minutes or 2 hours and 8 minutes
3. 10
4. 50
5. 40
6. 128m
7. 120
8. 160
9. €800
10. €2400

Homework

1. a) 12 b) 72 c) 14 d) 24 e) 8 f) 0 g) 80 h) 48
i) 0 j) 28 k) 64 l) 0 m) 4 n) 16 o) 40 p) 12
q) 36 r) 8
2. 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50

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3. $30.6 \times 5 = 30.$
4. a) $3 \times 5 = 15$ b) $10 \times 5 = 50$ c) $5 \times 5 = 25$
d) $5 = 1 \times 5 = 5$
5. a) $5 + 5 + 5 = 15$ b) $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$
c) $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 40$
- 6.

X	0	1	2	3	4	5	6	7	8	9	10
5	0	5	10	15	20	25	30	35	40	45	50

8. a) $10 + 10 + 10 + 10 + 10 = 5 \times 10 = 50$
b) $5 + 5 + 5 + 5 = 4 \times 5 = 20$

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10.

X	10
0	0
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100

11. 8, 5, 12, 35, 80, 76, 42, 60, 12, 48, 50, 10, 75, 45, 6, 55, 98, 4
12. a) $5 \times 10 = 50$ b) $2 \times 10 = 20$
13. 20
14. 90
15. 20
16. 30
17. €45
18. 148

11. Length

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1. a) 3cm b) 1cm c) $5\frac{1}{2}$ cm d) 2cm

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2. —
3. 3cm
4. —

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Renaming Metres and Centimetres

3. a) 154cm b) 217cm
c) 112cm d) 367cm
e) 145cm f) 297cm
g) 434cm h) 319cm
i) 586cm j) 110cm
k) 190cm l) 309cm
m) 911cm n) 666cm
o) 101cm

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4. a) 1m 32cm b) 2m 74cm
c) 1m 65cm d) 4m 78cm
e) 3m 21cm f) 2m 24cm
g) 5m 67cm h) 3m 29cm
i) 4m 2cm j) 1m 11cm
k) 2m 2cm l) 4m 0 cm
m) 9m 99cm n) 8m 90cm
o) 0m 24cm

Adding m and cm

5. a) 2m 89cm b) 3m 97cm
c) 5m 79cm d) 4m 26cm
e) 8m 50cm
6. a) 3m 6cm b) 4m 8cm
c) 5m 55cm
7. a) 3m 39cm b) 6m 9cm
c) 7m 21cm

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Subtracting m and cm

1. a) 3m 45cm b) 1m 50cm
c) 1m 91cm d) 3m 69cm
e) 67cm
2. a) 1m 43cm b) 1m 61cm
c) 7m 87cm
3. a) 1m 42cm b) 3m 90cm
c) 7m 65cm

Puzzler: Answer = 12

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Word Problems

- 25m
- 15m
- 180cm
- 50m
- 15m 70cm
- 10m
- 20m 32cm
- 40m
- 12m 60cm
- 25m
- 5m 71cm
- Grace
- 3m 80cm
- 53cm
- i) 80m ii) 20m

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Homework

- a) $2\frac{1}{2}$ cm b) 2cm c) $3\frac{1}{2}$ cm
d) 1cm
-
- a) 519cm b) 142cm
c) 900cm d) 604cm
e) 170cm f) 107cm
- a) 1m 98cm b) 7m 12cm
c) 6m 0cm d) 1m 2cm
e) 5m 20cm f) 0m 16cm

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- a) 9m 89cm b) 4m 32cm
c) 11m 11cm d) 2m 63cm
e) 9m 3cm f) 1m 65cm
g) 5m 8cm h) 8m 17cm
i) 3m 35cm j) 8m 11cm
- a) 63cm b) 24cm
c) 1m 89cm

12. Division 2

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$10 \div 5 = 2$

- a) 2 b) 2 c) 8 d) 9
e) 5 f) 1 g) 7 h) 5
i) 8 j) 6 k) 9 l) 9
m) 9R1 n) 4R3 o) 9R1
p) 8R4

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Dividing by 5

- a) 3 b) $15 \div 5 = 3$
- a) 4 b) $20 \div 5 = 4$
- $30 \div 5 = 6$ Each drink will get 6 ice cubes.
- a) 2 b) 3 c) 1 d) 5 e) 8 f) 7 g) 4 h) 10 i) 9
- 8
- 7
- 3
- 4

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- 10
- 9

Dividing by 10

- 3
- 6
- a) 8 b) $80 \div 10 = 8$
- $50 \div 10 = 5$ Each child will get 5 chocolate drops.
- a) $40 \div 10 = 4$ b) $10 \div 10 = 1$
- a) 2 b) 4 c) 1 d) 3 e) 5 f) 7 g) 9

Puzzler: One possible answer is $75 - 6 = 69$ $69 \times 9 = 621$

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Division and Multiplication

- a) $10 \times 8 = 80$ b) $80 \div 8 = 10$
- a) $3 \times 5 = 15$ b) $15 \div 5 = 3$
- a) $5 \times 6 = 30$, $6 \times 5 = 30$, $30 \div 6 = 5$, $30 \div 5 = 6$
b) $3 \times 10 = 30$, $10 \times 3 = 30$, $30 \div 10 = 3$, $30 \div 3 = 10$
c) $5 \times 10 = 50$, $10 \times 5 = 50$, $50 \div 10 = 5$, $50 \div 5 = 10$

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4.

x 5	÷ 5	x 10	÷ 10
$1 \times 5 = 5$	$5 \div 5 = 1$	$1 \times 10 = 10$	$10 \div 10 = 1$
$2 \times 5 = 10$	$10 \div 5 = 2$	$2 \times 10 = 20$	$20 \div 10 = 2$
$3 \times 5 = 15$	$15 \div 5 = 3$	$3 \times 10 = 30$	$30 \div 10 = 3$
$4 \times 5 = 20$	$20 \div 5 = 4$	$4 \times 10 = 40$	$40 \div 10 = 4$
$5 \times 5 = 25$	$25 \div 5 = 5$	$5 \times 10 = 50$	$50 \div 10 = 5$
$6 \times 5 = 30$	$30 \div 5 = 6$	$6 \times 10 = 60$	$60 \div 10 = 6$
$7 \times 5 = 35$	$35 \div 5 = 7$	$7 \times 10 = 70$	$70 \div 10 = 7$
$8 \times 5 = 40$	$40 \div 5 = 8$	$8 \times 10 = 80$	$80 \div 10 = 8$
$9 \times 5 = 45$	$45 \div 5 = 9$	$9 \times 10 = 90$	$90 \div 10 = 9$
$10 \times 5 = 50$	$50 \div 5 = 10$	$10 \times 10 = 100$	$100 \div 10 = 10$

5.

a) i) $32 \div 8 = 4$

ii) $8 \overline{)32}$
4

4

iii) $8 \overline{)32}$

iv) $\frac{32}{8} = 4$

b) i) $12 \div 2 = 6$

ii) $2 \overline{)12}$
6

6

iii) $2 \overline{)12}$

iv) $\frac{12}{2} =$

c) i) $72 \div 8 = 9$

ii) $8 \overline{)72}$
9

9

iii) $8 \overline{)72}$

iv) $\frac{72}{8} =$

d) i) $28 \div 4 = 7$

ii) $4 \overline{)28}$
7

7

iii) $4 \overline{)28}$

iv) $\frac{28}{4} = 7$

e) i) $50 \div 5 = 10$

ii) $5 \overline{)50}$
10

10

iii) $5 \overline{)50}$

iv) $\frac{50}{5} = 10$

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6. a) 7 b) 5 c) 5 d) 5

e) 1 f) 8 g) 8 h) 3

i) 4R1 j) 7R2 k) 6R2

l) 7R4 m) 9R3 n) 1R5

o) 6R3 p) 4R3 q) 8R3

r) 7R2 s) 8R1 t) 9R4

7. 11

8. $17 \div 5 = 3R2$

Homework

1. a) 2 b) 3 c) 10 d) 4 e) 7 f) 7 g) 3 h) 9

i) 8R1 j) 6R2 k) 9R1 l) 2R4 m) 3R1 n) 3R5

o) 7R4 p) 7R7

2. $10 \div 5 = 2$

3. $14 \div 5 = 2R4$

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4. a) $20 \div 5 = 4$ b) $35 \div 5 = 7$

5.

÷	5	10	15	20	25	30	35	40	45	50
5	1	2	3	4	5	6	7	8	9	10

6. a) $40 \div 5 = 8$ and $8 \times 5 = 40$

b) $100 \div 10 = 10$ and $10 \times 10 = 100$

7. 5R3

8. a) 5 b) 4 c) 1 d) 6 e) 7 f) 6 g) 10 h) 3 i) 8R1

j) 4R3 k) 9R2 l) 10R1 m) 9R4 n) 4R7 o) 7R1 p) 8R3

q) 9R9 r) 7R3 s) 8R3 t) 5R2

13. Number Patterns and Sequences

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1. a) pear, pineapple, plum, plum, banana

b) red oval, blue square, red hexagon, blue triangle

2. 16 dots, 19 dots

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3. a) red, green, blue, yellow, yellow

4. a) Teacher check. Rule: The green corner is moving around clockwise

b) Teacher check. Rule: The arrow is moving around anti-clockwise

Number Patterns on a Number Line

1. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

2. 5, 10, 15, 20

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Number Patterns in a Hundred Square

1, 2 and 3: Teacher check.

4. The multiples of 2 are within the multiples of 4 and 8 and the multiples of 4 are within the multiples of 8. (The multiples of 3 are also within the multiples of 6 and 9.)

Puzzler: Answer = The digit 1 appears most often. The digit 0 appears least often.

5. a) 28, 38, 48, 58, 68 b) 24, 34, 44, 54, 64

c) 6, 16, 26, 36, 46 d) 16, 26, 36, 46, 56

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Number Sentences

7. a) 21, 24, 27 Going up in 3s
b) 32, 37, 42 Going up in 5s
c) 90, 101, 112
Going up in 11s
d) 118, 128, 138
Going up in 10s
e) 801, 806, 811
Going up in 5s
f) 474, 374, 274
Going down in 100s
g) 487, 512, 537
Going up in 25s
h) 35, 43
A difference of 1 between the first 2 numbers in the sequence, then a difference of 2, then a difference of 3 and so on.
i) 549, 509
Subtracting 100 from the first number in the sequence, and then reducing by 10 the number subtracted from each subsequent number in the sequence.

Homework

1. a) blue, yellow, blue, yellow
b) dark blue, light blue, light green, dark green
c) purple, yellow, pink, yellow
d) blue, blue, pink, green
e) green, blue, light purple, dark purple
2. Rule: Rotate clockwise by one turn.
3. Rule: Rotate clockwise by one turn.

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4. 13, 16, 19, 22, 25
5. a) 35, 40, 45 Going up in 5s
b) 48, 56, 63 Going up in 7s
c) 147, 163, 179
Going up in 16s

- d) 36, 49, 64
Sequence = add 3, then increase by 2
- e) 21, 28, 36
Sequence = add 3, then increase by 1 more each time
- f) 701, 803, 905
Going up in 102s
- g) 48 Going down in 150s
- h) 210, 240, 275
Add 5 to the first number in the sequence, then increase by 5 the number added to each subsequent number in the sequence.

15. Multiplication 3

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Memory Check

1. a) 8 b) 20 c) 8 d) 30 e) 70 f) 15 g) 16 h) 25

Counting in 3s, 6s and 9s

2. a), b) and c): Teacher check. (All multiples of 3 on the 100-square should contain a red mark, all multiples of 6 should contain a green mark and all multiples of 9 should contain a blue mark.)
d) The multiples of 3 are within the multiples of 6 and 9.
3. $3 + 3 + 3 + 3 = 12$
 $4 \times 3 = 12$
4. a) $3 + 3 + 3 = 3 \times 3 = 9$ b) $8 \times 3 = 24$

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5. a) $5 \times 3 = 3 + 3 + 3 + 3 + 3 = 15$ b) $2 \times 3 = 3 + 3 = 6$
c) $10 \times 3 = 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30$

6.

X	0	1	2	3	4	5	6	7	8	9	10
3	0	3	6	9	12	15	18	21	24	27	30

7. $11 \times 3 = 33$
8. a) $2 \times 6 = 12$ b) $4 \times 6 = 24$ c) $0 \times 6 = 0$ d) $6 \times 6 = 36$
e) $7 \times 6 = 42$
9. $6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = 9 \times 6 = 54$
10. $3 \times 6 = 18$
11. $6 + 6 + 6 + 6 + 6 = 5 \times 6 = 30$
12. a) $6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = 8 \times 6 = 48$ b) $1 \times 6 = 6$
c) $6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = 10 \times 6 = 60$

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Puzzler: One solution could be: $(75 - 3) \times 6 = 432 + 5 = 437$

Multiplying 9s

1. $7 \times 9 = 9 + 9 + 9 + 9 + 9 + 9 + 9 = 63$
2. $9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 = 10 \times 9 = 90$
3. $6 \times 9 = 54$ That is, $9 + 9 + 9 + 9 + 9 + 9 = 6 \times 9 = 54$
4. a) $9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 = 81$ b) $9 \times 9 = 81$

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5. a) $3 \times 9 = 27$ b) $1 \times 9 = 9$
6. a) $2 \times 9 = 18$ b) $4 \times 9 = 36$ c) $8 \times 9 = 72$ d) $5 \times 9 = 45$
e) $1 \times 9 = 9$ f) $9 \times 9 = 81$

7.

X	0	1	2	3	4	5	6	7	8	9	10
9	0	9	18	27	36	45	54	63	72	81	90

8. $30 \times 9 = 270$
9. $1 + 1 + 1 + 1 + 1 = 5 \times 1 = 5$

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10. a) $6 \times 1 = 6$ b) $4 \times 1 = 4$ c) $2 \times 1 = 2$ d) $0 \times 1 = 0$
e) $1 \times 1 = 1$ f) $7 \times 1 = 7$

Counting in 7s

1. Teacher check: All multiples of 7 on the 100-square should be shaded.
2. 0, 7, 14, 21, 28, 35, 42, 49, 56, 63, 70.
3. 35 days
4. a) 7 b) $7 + 7 + 7 = 3 \times 7 = 21$
5.

x	0	1	2	3	4	5	6	7	8	9	10
7	0	7	14	21	28	35	42	49	56	63	70

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Multiplying 0s

1. a) 0 b) 0
2. $0 + 0 = 2 \times 0 = 0$
3. a) 0 b) 0 c) 0 d) 0 e) 0 f) 0 g) 0 h) 0 i) 0 j) 0 k) 0 l) 0
4. a) 8 b) 42 c) 4 d) 0 e) 63 f) 50 g) 25 h) 16
i) 90 j) 10 k) 24 l) 0 m) 48 n) 2 o) 0 p) 40
q) 0 r) 1

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Word Problems

1. 32
2. 63
3. 60
4. 38
5. 40
6. €103
7. €30
8. €28.50
9. €161.50
10. €149.50

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Homework

1. 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30
2. 0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60
3. 0, 9, 18, 27, 36, 45, 54, 63, 72, 81, 90
4. 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
6. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
7. 4, 8, 12, 16, 20, 24, 28, 32, 36, 40
8. 8, 16, 24, 32, 40, 48, 56, 64, 72, 80
9. Teacher check: multiplication wheel should contain answers for 5 times table
10. Teacher check: multiplication wheel should contain answers for 10 times table
11. Teacher check: multiplication wheel should contain answers for 7 times table

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12. $9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 = 8 \times 9 = 72$
13. $6 + 6 + 6 = 3 \times 6 = 18$
14. $0 \times 0 = 0$
15. 40c
16. 12, 15, 18, 21, 24, 27, 30
17. 35
18. 54
19. 56
20. $6 + 6 + 6 + 6 + 6 + 6 = 36$
22. 1×24 , 2×12 , 3×8 , 4×6 , 6×4 , 8×3 , 12×2 , 24×1
23. 1×36 , 2×18 , 3×12 , 4×9 , 6×6 , 9×4 , 12×3 , 18×2 , 36×1
24. 640
25. 15

16. Division 3

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- a) 9 b) 6 c) 6 d) 7
e) 10 f) 8 g) 6 h) 7R4
i) 7R6 j) 1R7 k) 9R2
l) 5R3 m) 9R5 n) 8R4
o) 5R1 p) 8R3 q) 5R7
r) 7R7 s) 5R1 t) 5R3

Dividing by 3, 6 and 9

- a) 4 b) $12 \div 3 = 4$
- a) 6 b) $36 \div 6 = 6$

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- 4
- $18 \div 3 = 6$
Each child will get 6 gobstoppers
- $30 \div 6 = 5$
Each horse will get 5 apples
- a) Each rabbit will get 2 heads of lettuce
b) $18 \div 9 = 2$
- a) $24 \div 3 = 8$
b) $24 \div 6 = 4$
c) $81 \div 9 = 9$
- a) 2 b) 2 c) 1 d) 3
e) 1 f) 4 g) 3 h) 5
i) 4 j) 5 k) 1 l) 2
m) 4 n) 3 o) 6 p) 5
q) 7 r) 6 s) 8 t) 8
u) 9 v) 6 w) 10 x) 10
y) 7 z) 8

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- 9R1
- 9R2
- 3R3

Dividing by 7

- a) 4 b) $28 \div 7 = 4$
- $49 \div 7 = 7$
- a) 2 b) 5 c) 6 d) 1
e) 3 f) 10 g) 5R4
h) 8 i) 9
- 1
- 3
- 4R1
- 8R5

Puzzler: Answer = Give the first 3 children 1 burger each from the snack box. Then hand the snack box to the 4th child with the remaining burger still in it.

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Division and Multiplication

- a) $7 \times 3 = 21$ b) $21 \div 3 = 7$
-

$\times 3$	$\div 3$	$\times 6$	$\div 6$
$1 \times 3 = 3$	$3 \div 3 = 1$	$1 \times 6 = 6$	$6 \div 6 = 1$
$2 \times 3 = 6$	$6 \div 3 = 2$	$2 \times 6 = 12$	$12 \div 6 = 2$
$3 \times 3 = 9$	$9 \div 3 = 3$	$3 \times 6 = 18$	$18 \div 6 = 3$
$4 \times 3 = 12$	$12 \div 3 = 4$	$4 \times 6 = 24$	$24 \div 6 = 4$
$5 \times 3 = 15$	$15 \div 3 = 5$	$5 \times 6 = 30$	$30 \div 6 = 5$
$6 \times 3 = 18$	$18 \div 3 = 6$	$6 \times 6 = 36$	$36 \div 6 = 6$
$7 \times 3 = 21$	$21 \div 3 = 7$	$7 \times 6 = 42$	$42 \div 6 = 7$
$8 \times 3 = 24$	$24 \div 3 = 8$	$8 \times 6 = 48$	$48 \div 6 = 8$
$9 \times 3 = 27$	$27 \div 3 = 9$	$9 \times 6 = 54$	$54 \div 6 = 9$
$10 \times 3 = 30$	$30 \div 3 = 10$	$10 \times 6 = 60$	$60 \div 6 = 10$

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$\times 9$	$\div 9$	$\times 7$	$\div 7$
$1 \times 9 = 9$	$9 \div 9 = 1$	$1 \times 7 = 7$	$7 \div 7 = 1$
$2 \times 9 = 18$	$18 \div 9 = 2$	$2 \times 7 = 14$	$14 \div 7 = 2$
$3 \times 9 = 27$	$27 \div 9 = 3$	$3 \times 7 = 21$	$21 \div 7 = 3$
$4 \times 9 = 36$	$36 \div 9 = 4$	$4 \times 7 = 28$	$28 \div 7 = 4$
$5 \times 9 = 45$	$45 \div 9 = 5$	$5 \times 7 = 35$	$35 \div 7 = 5$
$6 \times 9 = 54$	$54 \div 9 = 6$	$6 \times 7 = 42$	$42 \div 7 = 6$
$7 \times 9 = 63$	$63 \div 9 = 7$	$7 \times 7 = 49$	$49 \div 7 = 7$
$8 \times 9 = 72$	$72 \div 9 = 8$	$8 \times 7 = 56$	$56 \div 7 = 8$
$9 \times 9 = 81$	$81 \div 9 = 9$	$9 \times 7 = 63$	$63 \div 7 = 9$
$10 \times 9 = 90$	$90 \div 9 = 10$	$10 \times 7 = 70$	$70 \div 7 = 10$

More Division Questions

1. a) 5 b) 8 c) 9 d) 9
e) 8R3 f) 3R3 g) 9R5
h) 4R6 i) 9R5 j) 8R1
k) 8R3 l) 55

2. a) $45 \div 9 = 5$
b) $9 \overline{)45}$
c) $9 \overline{)45}$
d) $\frac{45}{9} = 5$
e) $5 \times 9 = 45$

3. a) $24 \div 3 = 8$
b) $3 \overline{)24}$
c) $3 \overline{)24}$
d) $\frac{24}{3} = 8$
e) $8 \times 3 = 24$

4. a) $54 \div 6 = 9$
b) $6 \overline{)54}$
c) $6 \overline{)54}$
d) $\frac{54}{6} = 9$
e) $9 \times 6 = 54$

5. a) $35 \div 7 = 5$
b) $5 \overline{)35}$
c) $5 \overline{)35}$
d) $\frac{35}{5} = 7$
e) $5 \times 7 = 35$

Page 107 Word Problems

1. 9
2. 7
3. €9
4. 1 litre
5. 9, 2cm

6. a) 2 b) 160 c) 4
7. 12 minutes
8. 15 minutes

Page 108 Homework

1. a) 9 b) 7 c) 9 d) 5 e) 8R1 f) 7R1 g) 9R2 h) 9R4
2. a) 8 b) No c) $32 \div 4 = 8$
3. 4
4. 9, 1
5. a) 8 b) 9 c) 6R2 d) 9R1
6. a) 9 b) Yes (7) c) $79 \div 8 = 9R7$
7. 6R0
8. 8R3
9. a) $50 \div 5 = 10$
b) $35 \div 7 = 5$

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10. **8, 3, 24:** $3 \times 8 = 24$, $8 \times 3 = 24$, $24 \div 3 = 8$, $24 \div 8 = 3$
63, 9, 7: $9 \times 7 = 63$, $7 \times 9 = 63$, $63 \div 9 = 7$, $63 \div 7 = 9$
42, 6, 7: $6 \times 7 = 42$, $7 \times 6 = 42$, $42 \div 6 = 7$, $42 \div 7 = 6$
7, 28, 4: $7 \times 4 = 28$, $4 \times 7 = 28$, $28 \div 4 = 7$, $28 \div 7 = 4$

11.

÷	3	6	9	12	15	18	21	24	27	30
3	1	2	3	4	5	6	7	8	9	10

÷	6	12	18	24	30	36	42	48	54	60
6	1	2	3	4	5	6	7	8	9	10

÷	9	18	27	36	45	54	63	72	81	90
9	1	2	3	4	5	6	7	8	9	10

÷	7	14	21	28	35	42	49	56	63	70
7	1	2	3	4	5	6	7	8	9	10

12. a) 10 b) 7 c) 7 d) 8 e) 9R1 f) 8R5 g) 9R2 h) 1R1

17. Fractions 2

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1. Colour one section
2. $\frac{1}{2}$
3. Colour one section
4. Colour one section
5. $\frac{3}{8}$
6. $\frac{1}{2}$
7. $\frac{1}{2}$
8. Colour two apples
9. a) $\frac{3}{4}$ b) $\frac{4}{10}$ c) $\frac{1}{2}$ d) $\frac{1}{2}$
10. Colour 2 triangles
11. 3 circles
12. 2 boats

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- a) 4 b) 8 c) 2 d) 3
e) 15 f) 16 g) 25 h) 30
- a) 18 b) 2
c) $44 \div 11 = 4$ d) 8
e) 7 f) 6

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- a) 3 b) 3 c) 8 d) 2
e) 1 f) 5 g) 5 h) 4
i) 12 j) 24 k) 1 l) 7
m) 4 n) 6 o) 29
p) 6 q) 49 r) 7 s) 9
t) 9 u) 6 v) 19
w) 12 x) 10

Puzzler: Answer = Jim ate the cream doughnut, Seán ate the meringue, Evelyn ate the coffee slice and Sheila ate the éclair.

- a) 8 b) 12 c) 20 d) 24
e) 22 f) 36

Page 113

- a) 4 b) 4 c) 24 d) 20
e) 36 f) 100 g) 32 h) 52
- a) 32 b) 50 c) 56 d) 10
- a) 64 b) 20 c) 8 d) 90
- a) 16 b) 8 c) 40 d) 40
e) 24 f) 22 g) 70 h) 28
i) 100 j) 100c or €1
k) 48 mins l) 100cm or 1m

Page 114

Word Problems

- 43
- 7
- 10
- 6
- Teacher check (e.g. first drawing = a triangle of 10 marbles similar to the set-up of balls in a game of snooker; second drawing = a rectangle of 10 marbles – 2 rows of 5 marbles).
- 35 mins
- €9
- 20
- 5m 60cm
- 56
- 35

12. 20

- Susan is the winner with 90 marbles. Evelyn has 10 marbles.

Page 115 Homework

- Colour 2 sections
- $\frac{3}{8}$
- Colour 1 section
- Colour 1 section
- a) $\frac{3}{4}$ b) $\frac{1}{2}$ c) $\frac{3}{10}$ d) $\frac{6}{8}$ or $\frac{3}{4}$
- a) 27 b) 7 c) 4 d) 1
e) 21 f) 17 g) 10 h) 9
i) 23 j) 12 k) 11 l) 25
- a) 12 b) 28 c) 72
d) 40
- a) 4 b) 16 c) 64
d) 100 e) 2 f) 44
g) 48 h) 80 i) 86 j) 10
k) 92 l) €4 m) 1kg
n) 56 mins o) 246cm
- $\frac{1}{4}$
- 80c

18. Decimals

Page 117

- a) Colour 7 reams of paper
b) 0.7
- a) Colour 1 section
b) 0.1
- a) Colour 9 sections
b) $\frac{9}{10}$
- a) Colour 6 sections
b) $\frac{6}{10}$
- a) $\frac{3}{10}$ b) 0.3
- a) $\frac{4}{10}$ b) 0.4
- a) 0.1 b) 0.9
- a) 0.2 b) 0.3
- Teacher check
- Teacher check

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___ 0.1, 0.2, 0.3, 0.4, 0.5, 0.6 ___
0.8, 0.9 ___ 1.1, 1.2, .3, 1.4,
1.5 ___ 1.7, 1.8, 1.9, 2, 2.1, 2.2

- 0.9. Teacher check
- 0.3. Teacher check
1. Teacher check

Puzzler:

0.2	2.8	3.0	0.8
2.4	1.4	1.2	1.8
1.6	2.2	2.0	1.0
2.6	0.4	0.6	3.2

Page 119

Word Problems

- 8.4cm
- $\frac{6}{10}$, 0.6
- Between 103fm and 104fm
- 33.5 degrees Celsius
- a) Dee M b) Joanne B
c) Claire B d) Emer K
e) Sarah E f) Fiona W
g) Ann M h) Judith E
i) Lucy B j) Gail O'C

Page 120

Homework

- a) Colour 8 sections b) $\frac{8}{10}$
- a) Colour 1 section b) $\frac{1}{10}$
- a) Colour 4 sections b) $\frac{4}{10}$
- a) Colour 7 sections b) $\frac{7}{10}$
- a) $\frac{2}{10}$ b) 0.2
- a) $\frac{5}{10}$ or $\frac{1}{2}$ b) 0.5
- a) 0.6 b) 0.4
- a)–c) Teacher check
- Teacher check
- Teacher check

Page 121

- Teacher check
- Teacher check
- 0.9. Teacher check
- 0.1. Teacher check
- 1.1. Teacher check
- 16.

0.8	3.6	1.6
2.8	2.0	1.2
2.4	0.4	3.2

20. Area

Page 122

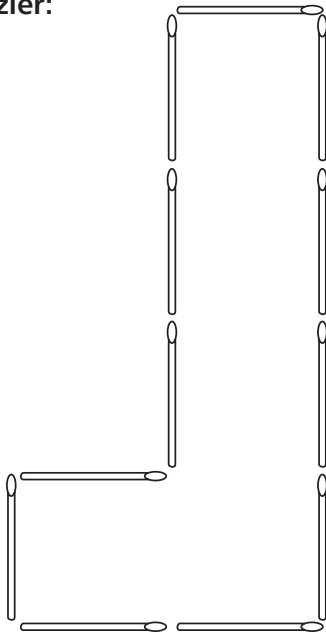
Rug B

Page 123

- h
- a
- b) 12 sq. units
c) 16 sq. units d) 4 sq. units
e) 5 sq. units f) 12 sq. units
g) 16 sq. units
h) 17 sq. units i) 4 sq. units

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Puzzler:



Our School Vegetable Garden

Page 125

- 14 sq. units
- 8 sq. units
- 5 sq. units
- 6 sq. units
- 14 sq. units
- 10 sq. units
- 8 sq. units
- 14 sq. units
- 4 sq. units
- 7 sq. units
- 24 sq. units
- 69 sq. units
- 108 sq. units
- 208 sq. units

Homework

Page 126

- a
- c
- a) 15 b) 10 c) 2 d) 12

21. Money

Page 127

- 1c, 2c, 5c, 10c, 20c, 50c, €1, €2, €5, €10, €20, €50, €100, €200, €500
- a) $200c + 45c = 2 \text{ euros} + 45c = \text{€}2.45$ b) $100c + 76c = 1 \text{ euro} + 76c = \text{€}1.76$
c) $800c + 79c = 8 \text{ euros} + 79c = \text{€}8.79$
d) $500c + 64c = 5 \text{ euros} + 64c = \text{€}5.64$
e) $100c + 32c = 1 \text{ euro} + 32c = \text{€}1.32$
f) $800c + 79c = 8 \text{ euros} + 79c = \text{€}8.79$
g) $200c + 33c = 2 \text{ euros} + 33c = \text{€}2.33$
h) $900c + 87c = 9 \text{ euros} + 87c = \text{€}9.87$
i) $400c + 36c = 4 \text{ euros} + 36c = \text{€}4.36$
j) $700c + 39c = 7 \text{ euros} + 39c = \text{€}7.39$
k) $100c + 35c = 1 \text{ euro} + 35c = \text{€}1.35$
l) $200c + 55c = 2 \text{ euros} + 55c = \text{€}2.55$
m) $100c + 99c = 1 \text{ euro} + 99c = \text{€}1.99$
n) $500c + 67c = 5 \text{ euros} + 67c = \text{€}5.67$
o) $600c + 54c = 6 \text{ euros} + 54c = \text{€}6.54$
p) $900c + 99c = 9 \text{ euros} + 99c = \text{€}9.99$
q) $100c + 3c = 1 \text{ euro} + 3c = \text{€}1.03$
r) $400c + 9c = 4 \text{ euros} + 9c = \text{€}4.09$
s) $200c + 20c = 2 \text{ euros} + 20c = \text{€}2.20$
t) $300c + 0c = 3 \text{ euros} + 0c = \text{€}3$

Page 128

- a) €0.25 b) €0.36
c) €0.17 d) €0.54
e) €0.39 f) €0.42 g) €0.22
h) €0.11 i) €0.99 j) €0.09
k) €0.04 l) €0.01
- a) $5 \text{ euros} + 82c = 500c + 82c = 582c$
b) $1 \text{ euro} + 43c = 100c + 43c = 143c$
c) $4 \text{ euros} + 89c + 400 + 89c = 489c$
d) $2 \text{ euros} + 22c = 200c + 22c = 222c$
e) $6 \text{ euros} + 50c = 600c + 50c = 650c$
f) $9 \text{ euros} + 90c = 900c + 90c = 990c$
g) $6 \text{ euros} + 9c = 600c + 9c = 609c$
h) $9 \text{ euros} + 5c = 900c + 5c = 905c$
i) $6 \text{ euros} + 12c = 600c + 12c = 612c$
j) $4 \text{ euros} + 30c = 400c + 30c = 430c$
k) $3 \text{ euros} + 0c = 300c + 0c = 300c$
l) $5 \text{ euros} + 0c = 500c + 0c = 500c$
- a) 24c b) 35c c) 12c
d) 29c e) 89c f) 43c
g) 53c h) 61c i) 10c
j) 80c k) 9c l) 1c
- $20c + 10c + 5c + 1c = 36c$

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- a) $\text{€}1 + 20c + 20c + 1 = \text{€}1.41$ b) $\text{€}1 + 20c + 5c = \text{€}1.25$ c) $20c = 2c = 22c$ d) $\text{€}1 + 20c + 5c + 2c + 2c = \text{€}1.29$ e) $\text{€}2 + 50c + 20c + 20c + 5c + 2c + 2c = \text{€}2.99$
- $1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c + 1c = 22 \times 1c = 22c$

Puzzler:



Start Position



Move 1



Move 2



Move 3



Move 4



Finish Position

Adding Money

Page 130

- a) $\text{€}1.41 + 22\text{c} = \text{€}1.63$ b) $\text{€}2.99 + 36\text{c} = \text{€}3.35$ c) $\text{€}1.25 + \text{€}1.29 = \text{€}2.54$ d) $\text{€}1.29 + 22\text{c} = \text{€}1.51$ e) $\text{€}2.99 + \text{€}1.41 = \text{€}4.40$ f) $36\text{c} + 22\text{c} = 58\text{c}$ g) $\text{€}1.41 + 36\text{c} + 22\text{c} = \text{€}1.99$ h) $\text{€}1.29 + \text{€}2.99 + \text{€}1.25 = \text{€}5.53$ i) $36\text{c} + \text{€}1.25 + 22\text{c} = \text{€}1.83$ j) $\text{€}2.99 + \text{€}1.41 + \text{€}1.29 = \text{€}5.69$

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Subtracting Money

- a) $\text{€}6.65 - \text{€}3.55 = \text{€}3.10$ b) $\text{€}5.98 - \text{€}4.62 = \text{€}1.36$
 c) $\text{€}9.43 - \text{€}5.27 = \text{€}4.16$ d) $\text{€}3.39 - \text{€}2.41 = \text{€}0.98$
 e) $\text{€}4.64 - \text{€}1.89 = \text{€}2.75$ f) $\text{€}5.00 - \text{€}3.55 = \text{€}1.45$
- a) $\text{€}1.31$ b) $\text{€}2.31$ c) $\text{€}0.14$ d) $\text{€}0.13$ e) $\text{€}1.03$
 f) $\text{€}1.00$ g) $\text{€}3.19$ h) $\text{€}0.17$ i) $\text{€}1.35$ j) $\text{€}7.99$
 k) $\text{€}3.00$ l) $\text{€}1.79$ m) $\text{€}0.56$ n) $\text{€}0.01$ o) $\text{€}1.45$
 p) $\text{€}0.55$ q) $\text{€}0.27$ r) $\text{€}0.86$

Page 133

- $\text{€}4.12$
- $\text{€}2.03$
- $\text{€}7.65$
- a) $\text{€}8.50$ b) $\text{€}1.50$
- 7 coins. $\text{€}2 + \text{€}1 + 50\text{c} + 20\text{c} + 10\text{c} + 5\text{c} + 2\text{c}$
- Yes
- $\text{€}4.01$
- $\text{€}29.75$

- $\text{€}3.85$
- $\text{€}4.16$
- a) $\text{€}9.54$ b) 46c
- $\text{€}3.20$
- 15 weeks
- a) 4 b) $\text{€}1.48$

Homework

Page 134

- a) $\text{€}1.34$ b) $\text{€}2.87$
 c) $\text{€}7.68$ d) $\text{€}44.53$
 e) $\text{€}2.64$ f) $\text{€}9.88$
 g) $\text{€}4.44$ h) $\text{€}8.76$
 i) $\text{€}3.27$ j) $\text{€}8.42$
 k) $\text{€}8.05$ l) $\text{€}3.60$
 m) $\text{€}0.36$ n) $\text{€}0.47$
 o) $\text{€}0.28$ p) $\text{€}0.65$
 q) $\text{€}0.12$ r) $\text{€}0.10$
 s) $\text{€}0.78$ t) $\text{€}0.40$
- a) 693c b) 254c c) 378c
 d) 123c e) 111c f) 199c
 g) 495 h) 777c i) 756c
 j) 188c k) 406c l) 800c
 m) 78c n) 69c o) 34c
 p) 21c q) 70c r) 42c
 s) 6c t) 9c
- a) $\text{€}9.63$ b) $\text{€}2.60$
 c) $\text{€}5.98$ d) $\text{€}13.07$
 e) $\text{€}9.65$ f) $\text{€}11.00$
- a) $\text{€}5.28$ b) $\text{€}4.32$
 c) $\text{€}2.65$ d) $\text{€}1.51$
 e) $\text{€}0.89$ f) $\text{€}0.32$
- Any coins to total $\text{€}1.12$

22. Symmetry

Page 135

- d
- Teacher check: The square should have 4 lines of symmetry; the triangle 3; the oval 2; the rectangle 2; the semicircle 1; the circle has any number once it crosses the centre point (this can be shown by drawing lots of lines crossing the centre); and the hexagon has 6.

Page 136

1. a) – l): Teacher check.
 a) is green with 6 lines of symmetry, b) is red, c) is green with 1 line, d) is green with 2 lines, e) is red, f) is red, g) is green with 4 lines, h) is red, i) is green with 1 line, j) is green with 3 lines, k) is red and l) is red.

Page 137

3. a, c, d, f, g, h, i

Puzzler: Teacher check

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1. A B C D E H I M O T U V W X
Y
 2. E.g. TOOT
 3. a), b)

Page 140

Homework

4. a) – l): Teacher check. a) is yellow, b) is blue with 2 lines of symmetry, c) is blue with 2 lines, d) is yellow, e) is blue with 4 lines, f) is yellow, g) is yellow, h) is blue with 8 lines, i) is yellow, j) is blue with 2 lines, k) is yellow and l) is blue with 1 line.

23. Multiplication 4

Page 141

1. a) 15 b) $6 \times 4 = 24$
 c) $2 \times 8 = 16$ d) $7 \times 4 = 28$
 e) $8 \times 3 = 24$ f) $1 \times 5 = 5$
 g) $4 \times 1 = 4$ h) $7 \times 5 = 35$
 i) $2 \times 0 = 0$ j) $9 \times 7 = 63$
 k) $7 \times 10 = 10 \times 7 = 70$
 l) $3 \times 9 = 9 \times 3 = 27$
2. a) $3 \times 9 = 27$ $9 \times 3 = 27$
 b) $8 \times 6 = 48$ $6 \times 8 = 48$
 c) $5 \times 3 = 15$ $3 \times 5 = 15$
 d) $6 \times 4 = 24$ $4 \times 6 = 24$

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- e) $7 \times 3 = 21$ $3 \times 7 = 21$ f) $9 \times 8 = 72$ $8 \times 9 = 72$
1. $9 \times 7 = (2 \times 7) + (7 \times 7) = 63$
 2. a) 28
 b) $5 \times 6 = 12 + 18 = 30$

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- c) $8 \times 5 = 20 + 20 = 40$
 d) $3 \times 9 = (2 \times 9) + (1 \times 9) = 27$
 $3 \times 9 = 18 + 9 = 27$
 e) $8 + 16 = 6 \times 4 = 24$
 f) $(3 \times 8) + (4 \times 8) = 7 \times 8 = 56$
 $24 + 32 = 7 \times 8 = 56$
1. a) $18 \times 5 = (10 \times 5) + (8 \times 5)$
 So $18 \times 5 = 50 + 40$
 So $18 \times 5 = 90$
 b) $12 \times 3 = (10 \times 3) + (2 \times 3)$
 $12 \times 3 = 30 + 6$
 $12 \times 3 = 36$
 c) $11 \times 8 = (1 \times 8) + (10 \times 8)$
 $11 \times 8 + 8 + 80$
 $11 \times 8 = 88$
 d) $2 \times 13 = (2 \times 10) + (2 \times 3)$
 $2 \times 13 = 20 + 6$
 $2 \times 13 = 26$
 e) $7 \times 14 = (7 \times 10) + (7 \times 4)$
 $7 \times 14 = 70 + 28$
 $7 \times 14 = 98$
 f) $19 \times 9 = (10 \times 9) + (9 \times 9)$
 $19 \times 9 = 90 + 81$
 $19 \times 9 = 171$

Page 144

Puzzler: Answer = 36 ($3 \times 4 \times 3$)

Extra Challenge: Yes ($2 \times 3 \times 5$)

Page 145

- b) 28 c) 91
2. a) 48 b) 93 c) 48
 d) 16 e) 66
3. a) 78 b) 70 c) 72
 d) 95 e) 68
4. a) 483 b) 768 c) 406
 d) 387 e) 426
5. $42 \times 9 = 378$
 6. $86 \times 6 = 516$
 7. $12 \times 9 = 108$

Page 146

1. a) 152 b) 196 c) 145
 d) 126 e) 186 f) 632
 g) 152

Page 147

1. 72c
 2. 55
 3. 92
 4. €1.17
 5. 108
 6. €4.95
 7. 712
 8. €2.04

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Homework

1. a) $6 \times 8 = 8 \times 6 = 48$
 b) $7 \times 5 = 5 \times 7 = 35$
 c) $9 \times 3 = 3 \times 9 = 27$
 d) $4 \times 9 = 9 \times 4 = 36$
 e) $4 \times 8 = 8 \times 4 = 32$
 f) $2 \times 8 = 8 \times 2 = 16$
 g) $4 \times 0 = 0 \times 4 = 0$
 h) $10 \times 5 = 5 \times 10 = 50$
 i) $7 \times 8 = 8 \times 7 = 56$
2. a) $5 \times 9 = 45$ $9 \times 5 = 45$
 b) $7 \times 6 = 42$ $6 \times 7 = 42$
 c) $8 \times 4 = 32$ $4 \times 8 = 32$
3. a) $6 \times 3 = 12 + 6 = 18$
 b) $8 \times 5 = 25 + 15 = 40$
 c) $16 \times 5 = 50 + 30 = 80$
 d) $13 \times 8 = (10 \times 8) + (3 \times 8) = 104$
 $13 \times 8 = 80 + 24 = 104$

Page 149

4. a) 39 b) 128 c) 364
 d) 396 e) 450
5. a) 147 b) 186 c) 136
 d) 637
6. 232
 7. 342
 8. MAHATMA GANDHI



24. 2-D Shapes

Page 150

a) square b) triangle c) oval
d) rectangle e) semicircle f) circle

- red, blank, blue, blank, red, blue
- Any two six-sided shapes.
(Lines and angles must not all be equal.)

Page 151

- Ticks inside (ii), (iv) and (v)

Page 152

- Teacher check.

Tessellations

(i) colour red (ii) colour blue
(iii) colour red

Page 154

Puzzler – Lollipop Stick Puzzle:

Answer = 2 matches are taken from the centre square and used to complete a new small square in the top right-hand corner. The remaining 2 matches are taken from the centre square to complete a third small square in the bottom left corner.

Homework

- a) square b) triangle c) rectangle
d) circle e) hexagon f) semicircle
g) oval
- a) blue b) red c) blue d) blue
e) red f) red g) blue
 - a) yellow b) green c) green
d) green e) yellow f) yellow
g) yellow

25. Division 4

Page 155

- a) 5 b) 5 c) 9 d) 3
e) 8 f) 9 g) 10 h) 10
i) 7R5 j) 8R1 k) 7R1
l) 3R4 m) 6R1 n) 3R2
o) 9R1 p) 4R2 q) 4R4
r) 10 s) 2R1 t) 1R3

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- a) 12 b) 11 c) 49 d) 17
e) 12 f) 11 g) 15 h) 26
i) 12 j) 28 k) 13 l) 15
m) 38 n) 23 o) 14
p) 16 q) 20 r) 11R2
- a) 12R2 b) 9R5 c) 20
d) 4R5 e) 9R1 f) 10R8

Word Problems

- 8
- 2ml
- 23kg
- 4 rows of 4 counters
- 9, R6cm
- 15 mins
- 8R38c
- 10

Page 160 Homework

- a) 4 b) 5 c) 6 d) 9
e) 8 f) 7 g) 8 h) 7
i) 3R1 j) 5R2 k) 9R2
l) 8R4 m) 8R2 n) 3R3
o) 8R2
- a) 9 b) yes
c) $19 \div 2 = 9R1$
- a) 12 b) 11 c) 17
d) 13 e) 16 f) 10
- €31
- a) 12 b) 25 c) 14
d) 10 e) 13R5 f) 10 R5
g) 16R1 h) 14R3 i) 13R3
j) 15R2
- a) 18R4 b) 6R1 c) 28
d) 5R4 e) 3R1 f) 11R1

26. Time 1

Page 161

- 3rd, 1st, 5th, 2nd, 4th

Page 162

- a = 7:55 b = 2:05
c = 6:45 d = 1:00
e = 3:15 f = 5:35
g = 2:30
- a) 12:15 b) 2:10 c) 8:20
d) 11:00 e) 9:25 f) 10:40
g) 4:50
- Teacher check.

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- 9:00
- 2:30
- Wednesday 11:15–11:45
- Friday 1:20–2:30
- Monday 11:15–11.45
- 35mins
- $3\frac{1}{2}$ hrs
- 1 hr 55mins
- 22hrs 55mins
- Spring, summer, autumn, winter

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- Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
- January, February, March, April, May, June, July, August, September, October, November, December
- 13 April 1876, 22 November 1969, 1 January 2000, 3 December 2012, 15 October 2065
- Last Year, Yesterday, A Minute Ago, Tomorrow, Next Week

Homework

- a) Fill kettle with cold water.
b) Boil the kettle. c) Pour boiling water into cup with teabag. d) Stir and then remove teabag. e) Add milk and sugar if desired.

Page 165

- a) 7:55 b) 2:05 c) 6:45
d) 1:00 e) 3:15 f) 5:35
g) 2:30
- Teacher check.
- a) Monday 10:00–10:30
Tuesday 11:15–11:45
Wednesday 11:45–12:20
Thursday 10:45–11:15
Friday 10:45–11:15
b) 15 mins c) 40 mins
d) 50 mins

Page 165

- a) 7:55 b) 2:05 c) 6:45
d) 1:00 e) 3:15 f) 5:35
g) 2:30
- Teacher check.
- a) Monday 10:00–10:30
Tuesday 11:15–11:45
Wednesday 11:45–12:20
Thursday 10:45–11:15
Friday 10:45–11:15
b) 15 mins c) 40 mins
d) 50 mins

28. Lines and Angles

Page 166

- a) A horizontal line
b) A vertical line
c) A pair of parallel lines

Page 167

Lines

- a) – d) Teacher check
- a) – d) Teacher check
- a) – d) Teacher check

Page 168

Angles

- Answer = b, c, a.

Page 169

- Answer = c
- 4
- a) more than a right angle
b) a right angle c) less than a right angle d) less than a right angle
- a) 3 b) 0 c) 24 (6 squares with 4 right angles each)
d) 0

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- a) less than a right angle
b) less than a right angle
c) more than a right angle
d) a right angle
e) less than a right angle
f) less than a right angle

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Homework

- A line running parallel to the horizon
- A line running at a right angle to the horizon
- Two lines running the same distance apart, never touching
- a) – d) Teacher check
- a) – d) Teacher check

Page 173

- a) more than a right angle
b) more than a right angle
c) less than a right angle
d) a right angle

29. Weight

Page 174

90kg 800g

Page 177

Puzzler: Caoimhe should wear her jacket onto the plane!

Page 178

Adding and Subtracting Weights

- a) 7kg 591g b) 2kg 479g
c) 6kg 833g d) 201g
e) 1kg 154g
- a) 11kg 564g b) 737g
c) 773g
- a) 13kg 600g b) 444g
c) 7kg 3g

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Word Problems

- 1000g
- 4500g
- 397g
- 4kg 664g
- 4kg 468g
- 635g
- 6kg 29g
- 1kg 529g
- 125g
- 3kg 846g

30. Number Sentences

Page 181

- a) 15 b) 15 c) 16
d) 29 e) 110 f) 170
g) 209 h) 724 i) 11

Page 182

- j) 45 k) 66 l) 18 m) 629
n) 188 o) 585
- a) $35 + 61 = 96$
 $96 - 35 = 61$
b) $645 + 170 = 815$
 $815 - 645 = 170$
c) $67 - 53 = 14$
 $67 - 14 = 53$
d) $704 - 616 = 88$
 $704 - 88 = 616$
- a) 7 b) 5 c) 13 d) 10
e) 56 f) 26 g) 120
h) 281 i) 215 j) 348
k) 147 l) 173 m) 43
n) 762 o) 316

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Number Sentences and Word Problems

- a) $1 + 64 = 65$
b) $211 - 83 = 128$
c) $32 - 14 = 18$
d) $14 + 32 = 46$
- a) $106 + 112 = 218$
b) $120 - 56 = 64$
c) $€1.50 + €1.50 = €3$

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- a) $28 + 18 = 46$ b) $759 + 108 = 867$ c) $800 = 556 = 244$

Puzzler: $(248 - 192) \div 7 = 8$

Homework

- a) 141 b) 79 c) 964
d) $956 - 497 = 459$
e) $811 - 743 = 68$

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- a) 60 b) 28 c) 205
d) 757 e) 275 f) 12
- a) $17 + 7 = 24$
b) $564 - 297 = 267$
c) $9 + 32 = 41$
- a) $209 + 592 = 801$
b) $365 - 190 = 175$



31. Representing and Interpreting Data

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Bar Charts

- 4
- 11
- 2
- 7
- 6
- 30
- Playing
- Dancing
- 9
- Football and music

Page 190

Chart Challenge

- Teacher check: fresh fruit = 9; tea and toast = 4

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St Kevin's School Annual Charity Day

- Cake sale
- Throw the Balls in the Bucket
- €109
- €9.50
- €200
- €1083

32. Time 2

Page 197

- b) 31 December c) 1 January d) 17 March e) 25 December
g) Wednesday h) No, because there are 365 (or 366) days in a year and this is not divisible by 7 (the number of days in one week)

Puzzler: Answer = The letter m.

Page 198

- a) 65 b) 250 c) 84 d) 200 e) 110
f) 1 hr 15mins = 75 mins g) 134
- a) 1 hr 30 mins b) 1 hr 45mins = $1\frac{3}{4}$ hrs c) $\frac{1}{4}$ hr
d) 2hrs 15mins = $2\frac{1}{4}$ hrs e) 1hr 3mins f) 1hr 39mins
g) 2hrs 37mins h) 1hr 40mins i) 3hrs 54mins

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Homework

- a) 30 b) 31 c) 28 (or 29 in a leap year) d) 31
e) Tuesday f) Sunday
g) Monday h) 4 i) 14 j) 74 k) 30
l) 1 full month, 3 full weeks and 6 days.
- a) 68 b) 102 c) 95
d) 124 e) 178 f) 192 g) 2hrs 30mins = 150mins
h) 5hrs 45mins = 345mins
- a) 2hrs 30mins = $2\frac{1}{2}$ hrs b) 3hrs 45mins = $3\frac{3}{4}$ hrs c) $\frac{1}{2}$ hr
d) 1hr 15mins = $1\frac{1}{4}$ hrs e) 1hr 10mins f) 1hr 59mins
g) 2hrs 1min h) 2hrs 44mins i) 0hrs 25mins j) 3hrs 20mins

33. 3-D Shapes

Page 200

- a) Sphere b) Cylinder c) Cuboid d) Cube e) Cone
- a) Triangular prism b) A Toblerone bar
- a) Pyramid b) The Pyramids in Egypt

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Exploring 3-D Shapes

- (Labels from left to right) Face, Edge, Corner.
-

	Cone	Cuboid	Sphere	Cylinder	Triangular prism	Cube	Pyramid
Faces	2	6	1	3	5	6	5
Edges	1	12	0	2	9	12	8
Corners	1	8	0	0	6	8	5

3.

	Cone	Cuboid	Sphere	Cylinder	Triangular prism	Cube	Pyramid
Roll?	✓	✗	✓	✓	✗	✗	✗
Slide?	✓	✓	✗	✓	✓	✓	✓
Stack?	✗	✓	✗	✓	✓	✓	✗

Nets

Page 203

2. a) Sphere. Net = C b) Triangular prism. Net = G c) Cylinder. Net = A d) Cone. Net = D
 e) Pyramid. Net = E f) Cuboid. Net = B

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The Relationship between 3-D and 2-D Shapes

Cylinder = 5th

Triangular prism = 6th

Cone = 3rd

Pyramid = 1st

Cube = 2nd

Cuboid = 4th

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Homework

1. a) Cylinder b) Cone c) Triangular prism d) Cube e) Pyramid f) Sphere g) Cuboid

2.

	Cone	Cuboid	Sphere	Cylinder	Triangular prism	Cube	Pyramid
Faces?	2	6	1	3	5	6	5
Edges?	1	12	0	2	9	12	8
Corners?	1	8	0	0	6	8	5
Slide/ stack/roll?	Roll + slide	Slide + stack	Roll	Roll + slide + stack	Slide + stack	Slide + stack	slide

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4. Pyramid links to 3rd. Sphere links to 4th. Cube links to 5th. Cuboid links to 1st. Triangular prism links to 2nd. Cylinder links to 7th. Cone links to 6th.

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5. a) Squares x 6 b) Squares x 2, rectangles x 4 c) Circles x 2, rectangle or square x 1 d) Circle x 1
 (a half or full semicircle can also be used) e) Triangles x 2, rectangles x 3 f) Square x 1, triangles x 4

34. Capacity

Page 208

1. 300ml
 2. Fill it to the top with liquid and then pour that liquid into the measuring jug to measure.

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3. Jug A. Jug B looks as if it contains more water because it is taller, but it is narrower.

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Puzzler: Answer = Fill the blue bucket with water to the very top and pour it all into the red bucket. Then fill the blue bucket again to the very top and pour it into the red bucket until the water reaches the very top. Then you know that what is left in the blue bucket is 1 litre. Empty out the red bucket and pour in the 1 litre from the blue bucket. Then fill the blue bucket again to the

very top and add it to the liquid in the red bucket. You now have 4 litres in the red bucket.

Page 212

9. a) 4l 815ml b) 9l
c) 4l 216ml d) 4l 271ml
e) 1l 450ml f) 10l 887ml
g) 419ml
10. a) 16l 250ml b) 2l 918ml
c) 7l 100ml

Word Problems

1. 1000ml
2. 5000ml
3. 973ml
4. 750ml

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5. 322ml
6. 455ml
7. 7l 723ml
8. 4l 455ml
9. 2l 650ml
10. €50