

Page 4

- $a = 420$, $b = 480$, $c = 550$,
 $d = 570$
- $a = 610$, $b = 670$, $c = 720$,
 $d = 780$
- $a = 360$, $b = 390$, $c = 430$,
 $d = 495$ (accept ± 2 either side)
- $a = 710$, $b = 775$, $c = 823$,
 $d = 867$ (accept ± 2 either side)
- $512 = 500 + 10 + 2$
- $873 = 800 + 70 + 3$
- $609 = 600 + 9$
- $741 = 700 + 40 + 1$
- $120 = 100 + 20$

Think. Answers will vary.

Page 5

- $258 < 324$ and a number that lies between them
- $495 < 591$ and a number that lies between them
- $319 > 193$ and a number that lies between them
- $637 < 673$ and a number that lies between them
- $117 < 171$ and a number that lies between them
- $959 < 999$ and a number that lies between them
- 187, 253, 419, 526, 617
- 661, 698, 724, 749, 783
- weight greater than 573 g
- weight smaller than 783 g
- weight greater than 426 g
- weight smaller than 947 g

Page 6

- 499, 509, 513, 517, 539, 555
- 168, 177, 198, 223, 286, 291
- 741, 738, 719, 707, 682, 679
- 490, 481, 469, 464, 452, 418
- Any of 50, 60, 70, 80 or 90
- Any of 100, 200, 300, 400, 500, 600 or 700
- 0 or 10
- 0, 100, 200, 300 or 400
- 80 or greater
- 0, 1 or 2

Think. Answers will vary.

Page 7

- 210 g
- 245 g
- 497 g
- £225
- £169
- £485
- 583
- 754

- Lucas 575, Rani 545

Page 8

- 685 ml
- 497 ml
- 476 ml
- £432
- £205
- £585
- 478
- 689
- 848

Think. A word problem for the addition $460 + 50$.

Page 9

- $47 \times 10 = 470$
- $31 \times 10 = 310$
- $29 \times 10 = 290$
- $18 \times 10 = 180$
- $53 \times 10 = 530$
- $62 \times 10 = 620$
- $25 \times 10 = 250$
- $76 \times 10 = 760$
- $80 \times 10 = 800$
- $140 \div 10 = 14$
- $310 \div 10 = 31$
- $290 \div 10 = 29$
- $360 \div 10 = 36$
- $790 \div 10 = 79$
- $830 \div 10 = 83$
- $250 \div 10 = 25$
- $500 \div 10 = 50$
- $990 \div 10 = 99$

Think. When you make a number 10 times bigger, the digits move one place to the left. When you make a number 10 times smaller, the digits move one place to the right.

Page 10

- 4, 14, 24, 34, 44, 54, 64, 74, 84, 94, 104, 114, 124, 134, 144, ...
984, 994, 1004
- 4, 54, 104, 154, 204, 254, 304, 354, 404, 454, 504, 554, 604, ...
904, 954, 1004
- 4, 104, 204, 304, 404, 504, 604, 704, 804, 904, 1004
- 4, 104, 204, 304, 404, 504, 604, 704, 804, 904, 1004
- They are the same as the numbers in the 100s count.
- 10 more
- 90 more
- A correct number line 0 to 110 drawn showing three sequences:
4, 14, 24, 34, 44, 54, 64, 74, 84, 94, 104

- 4, 54, 104
- 4, 104

Think. A correct number line 0 to 130 drawn showing three sequences:

- 21, 31, 41, 51, 61, 71, 81, 91, 101, 111, 121
- 21, 71, 121
- 21, 121

Page 11

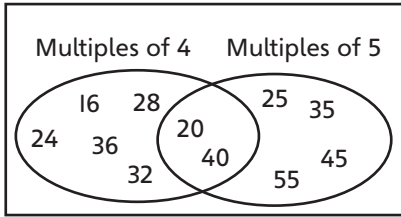
- $24 + 57 = 81$
- $71 + 29 = 100$
- $35 + 47 = 82$
- $63 + 28 = 91$
- $77 + 18 = 95$
- $62 + 19 = 81$
- $84 + 45 = 129$
- $63 + 72 = 135$
- $32 + 76 = 108$
- $98 + 61 = 159$
- $56 + 63 = 119$
- $83 + 74 = 157$
- $59 + 76 = 135$
- $83 + 77 = 160$
- $65 + 76 = 141$
- $47 + 95 = 142$
- $87 + 47 = 134$
- $93 + 78 = 171$
- $322 + 236 = 558$
- $255 + 423 = 678$
- $583 + 204 = 787$
- $537 + 462 = 999$
- 145 km
- 141 cm

Page 12

- Any four of these:
 $37 + 46 = 83$
 $37 + 72 = 109$
 $37 + 85 = 122$
 $46 + 72 = 118$
 $46 + 85 = 131$
 $72 + 85 = 157$
- $32 + 39 + 25 = 96$
- $21 + 17 + 38 = 76$
- $26 + 19 + 27 = 72$
- $18 + 27 + 34 = 79$
- $26 + 35 + 17 = 78$
- $28 + 27 + 29 = 84$
- $72 + 33 + 51 = 156$
- $42 + 32 + 75 = 149$
- $48 + 71 + 60 = 179$
- $53 + 62 + 94 = 209$
- $435 + 236 = 671$
- $664 + 228 = 892$
- $755 + 208 = 963$
- $678 + 212 = 890$
- 96
- 121 cm

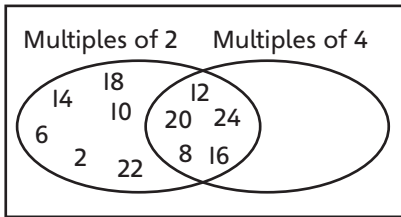
Page 13

1.



Think. Any number that is not a multiple of 4 or 5 placed outside the rings.

2.



Think. Any number that is not a multiple of 2 or 4 placed outside the rings. It will be an odd number.

3. False
4. True
5. True

Page 14

1. 32
2. 24
3. 40
4. 48
5. 64
6. 56
7. $3 \times 8 = 24$
8. $10 \times 8 = 80$
9. $4 \times 8 = 32$
10. $5 \times 8 = 40$
11. $7 \times 8 = 56$
12. $8 \times 8 = 64$
13. $9 \times 8 = 72$
14. $6 \times 8 = 48$
15. $12 \times 8 = 96$
16. 2
17. 96
18. 11
19. 64

Page 15

1. 24
2. 40
3. 56
4. 88
5. 64
6. $8 \times 4 = 32$
7. $8 \times 6 = 48$
8. $8 \times 9 = 72$
9. $8 \times 3 = 24$

10. $8 \times 8 = 64$
 $8 \times 2 = 16$

Think. 5 fingers (40), 10 fingers (80). 6 hands (30 fingers).

11. $12 \times 8 = 96$
12. $5 \times 8 = 40$
13. $11 \times 8 = 88$
14. $64 \div 8 = 8$
15. $6 \times 8 = 48$
16. $9 \times 8 = 72$
17. $0 \times 8 = 0$
18. $24 \div 8 = 3$
19. $20 \times 8 = 160$

Page 16

1. 4, 2
2. 22, 11
3. £6, £3
4. 10p, 5p
5. 16, 8
6. 20, 10
7. 12, 6
8. 40, 20
9. 50 g, 25 g
10. 24
11. Yes, 12 each
12. 25
13. No
14. $36 \rightarrow 72$
15. $75 \rightarrow 150$
16. $45 \rightarrow 90 \rightarrow 180$
17. $22 \rightarrow 44 \rightarrow 88$
18. $75 \rightarrow 150 \rightarrow 300$
19. $64 \rightarrow 128 \rightarrow 256$

Page 17

1. 56
 2. 72
 3. 64
 4. 96
 5. 120
 6. 144
 7. 8
 8. 10
 9. 6
 10. 8
 11. 11
 12. 7
 13. 8
- Think. Double twice.

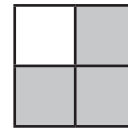
Page 18

1.



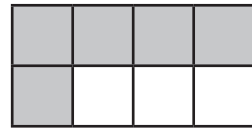
Fraction not shaded = $\frac{1}{6}$

2.



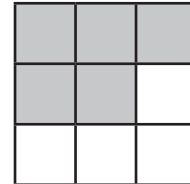
Fraction not shaded = $\frac{1}{4}$

3.



Fraction not shaded = $\frac{3}{8}$

4.



Fraction not shaded = $\frac{4}{9}$

5.



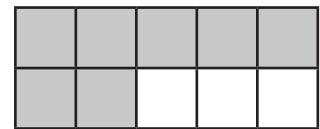
Fraction not shaded = $\frac{3}{5}$

6.



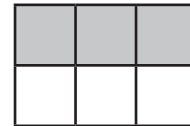
Fraction not shaded = $\frac{1}{3}$

7.



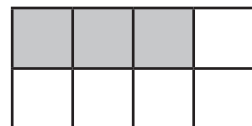
Fraction not shaded = $\frac{3}{10}$

8.



Fraction not shaded = $\frac{3}{6}$ or $\frac{1}{2}$

9.



Fraction not shaded = $\frac{5}{8}$

Think. Answers will vary.

10. $\frac{4}{8}$ or $\frac{1}{2}$
11. $\frac{4}{8}$ or $\frac{1}{2}$
12. $\frac{3}{8}$
13. $\frac{2}{8}$ or $\frac{1}{4}$
14. $\frac{6}{8}$ or $\frac{3}{4}$
15. $\frac{4}{8}$ or $\frac{1}{2}$
16. $\frac{5}{8}$
17. $\frac{4}{8}$ or $\frac{1}{2}$
18. $\frac{4}{8}$ or $\frac{1}{2}$

Page 19

1. $\frac{5}{6}, \frac{1}{6}$
2. $\frac{7}{12}, \frac{5}{12}$
3. $\frac{7}{16}, \frac{9}{16}$
4. $\frac{3}{10}, \frac{7}{10}$
5. $\frac{4}{5}, \frac{1}{5}$
6. $\frac{1}{8}, \frac{7}{8}$
7. $\frac{7}{9}, \frac{2}{9}$
8. $\frac{11}{15}, \frac{4}{15}$
9. $\frac{5}{8} + \frac{3}{8} = 1$
10. $\frac{2}{6} + \frac{4}{6} = 1$
11. $\frac{3}{9} + \frac{6}{9} = 1$
12. $\frac{3}{5} + \frac{2}{5} = 1$
13. $\frac{6}{10} + \frac{4}{10} = 1$
14. $\frac{1}{4} + \frac{3}{4} = 1$
15. $\frac{2}{3} + \frac{1}{3} = 1$
16. $\frac{1}{8} + \frac{7}{8} = 1$
17. $\frac{9}{10} + \frac{1}{10} = 1$
18. $\frac{1}{5} + \frac{4}{5} = 1$

Think. Any six fractions equal to 1 with an addition for each
e.g. $\frac{1}{2}, \frac{1}{2} + \frac{1}{2} = 1$

Page 20

1. Tom $\frac{1}{4}$, Sarah $\frac{1}{6}$, Amal $\frac{1}{3}$,
Jannie $\frac{1}{8}$, Keelin $\frac{1}{2}$
 2. The same
 3. $\frac{2}{3}$, more
 4. $\frac{4}{8}$
 5. $\frac{4}{6}$
 6. Tom $\frac{2}{4}$, Sarah $\frac{2}{6}$, Amal $\frac{1}{3}$,
Jannie $\frac{1}{8}$, Keelin $\frac{1}{2}$
- Think. Tom $\frac{4}{4}$, Sarah $\frac{6}{6}$, Amal $\frac{3}{3}$,
Jannie $\frac{8}{8}$, Keelin $\frac{2}{2}$

Page 21

1. $\frac{1}{2} = \frac{2}{4}$
2. $\frac{1}{3} = \frac{2}{6}$
3. $\frac{2}{3} = \frac{4}{6}$
4. $\frac{6}{6} = \frac{3}{3}$
5. $\frac{1}{2} = \frac{3}{6}$
6. $\frac{3}{4} = \frac{9}{12}$
7. $\frac{3}{12} = \frac{1}{4}$
8. $\frac{4}{12} = \frac{1}{3}$
9. $\frac{8}{12} = \frac{2}{3}$
10. True. Ben $\frac{3}{5}$, Annie $\frac{1}{2}$
11. Yes $\frac{3}{6} = \frac{4}{8} = \frac{1}{2}$

Page 22

Questions 1–8 to have accompanying number line drawn, with appropriate number of divisions and the fraction marked on.

1. $\frac{5}{8}$
2. $\frac{1}{2}$
3. $\frac{2}{6}$
4. $\frac{4}{10}$
5. $\frac{3}{4}$
6. $\frac{1}{12}$
7. $\frac{2}{3}$
8. $\frac{3}{5}$

Think. A shape divided into equal parts, a fraction of it shaded and a number line to match.

Page 23

1. $\frac{1}{4}, \frac{3}{4}$
2. $\frac{1}{8}, \frac{5}{8}$
3. $\frac{2}{5}, \frac{4}{5}$
4. $\frac{2}{3}$
5. $\frac{2}{6}, \frac{5}{6}$
6. $\frac{3}{10}, \frac{7}{10}$
7. $\frac{1}{2}$
8. $\frac{1}{3}$

Think. Answers will vary.

Page 24

1. $a = \frac{1}{5}, b = \frac{3}{5}$
2. $a = \frac{2}{6}, b = \frac{5}{6}$
3. $a = \frac{2}{10}, b = \frac{9}{10}$
4. $a = \frac{1}{4}, b = \frac{3}{4}, c = \frac{4}{4}$ or $1, d = 1 \frac{1}{4}$
or $\frac{5}{4}, e = 1 \frac{2}{4}$ or $1 \frac{1}{2}$ or $\frac{6}{4}$
5. A 0–1 number line divided into eighths drawn with $\frac{3}{8}$ and $\frac{7}{8}$ marked on.
6. A 0–2 number line divided into thirds drawn with $\frac{2}{3}$ and $1 \frac{1}{3}$ marked on.
7. A 0–2 number line divided into fifths drawn with $\frac{2}{5}$ and $1 \frac{3}{5}$ marked on.

Think. $\frac{1}{3}$ and $\frac{2}{6}, \frac{2}{3}$ and $\frac{4}{6}$.

Page 25

1. $\frac{1}{3}$ of 6 = 2
2. $\frac{2}{3}$ of 6 = 4
3. $\frac{3}{3}$ of 6 = 6
4. $\frac{2}{4}$ of 12 = 6
5. $\frac{3}{4}$ of 12 = 9
6. $\frac{1}{3}$ of 12 = 4

7. $\frac{2}{3}$ of 12 = 8
8. $\frac{2}{4}$ of 8 = 4
9. $\frac{3}{4}$ of 8 = 6
10. $\frac{1}{2}$ of 8 = 4
11. $\frac{2}{2}$ of 8 = 8

Page 26

1. $\frac{1}{3}$ of 6 = 2
2. $\frac{2}{3}$ of 6 = 4
3. $\frac{3}{3}$ of 6 = 6
4. $\frac{1}{3}$ of 15 = 5
5. $\frac{2}{3}$ of 15 = 10
6. $\frac{3}{3}$ of 15 = 15
7. $\frac{1}{5}$ of 15 = 3
8. $\frac{2}{5}$ of 15 = 6
9. $\frac{4}{5}$ of 15 = 12
10. $\frac{1}{4}$ of 20 = 5
11. $\frac{3}{4}$ of 20 = 15
12. $\frac{4}{4}$ of 20 = 20
13. $\frac{1}{5}$ of 20 = 4
14. $\frac{3}{5}$ of 20 = 12
15. $\frac{4}{5}$ of 20 = 16
16. $\frac{3}{4}$ of 8 = 6
17. $\frac{3}{5}$ of 15 = 9
18. $\frac{7}{10}$ of 20 = 14
19. $\frac{3}{5}$ of 10 = 6
20. $\frac{2}{3}$ of 9 = 6
21. $\frac{3}{8}$ of 16 = 6
22. $\frac{3}{10}$ of 30 = 9
23. $\frac{2}{5}$ of 25 = 10
24. $\frac{3}{4}$ of 12 = 9

Page 27

1, 3, 4, 6, 7 and 10 are right angles.
Think. A picture with lots of right angles in it.

Page 28

1. 90°
2. more than 90°
3. less than 90°
4. 90°
5. 90°
6. more than 90°
7. less than 90°
8. less than 90°
9. 90°
10. 90°

Think. Three angles drawn: a right angle, an angle smaller than a right angle and an angle greater than a right angle.

Page 29

1. b, l
2. e, g, i
3. a, d
4. c, f, h, j, k

Think. Any drawn irregular shape with two right angles.

Page 30

1. pentagon
2. triangle
3. quadrilateral
4. pentagon
5. triangle
6. hexagon
7. quadrilateral
8. triangle
9. pentagon
10. hexagon
11. hexagon
12. quadrilateral
13. pentagon
14. hexagon
15. quadrilateral

Think. A number of different hexagons drawn.

Page 31

1. d, e, f, g, j, k
2. c and i
3. a
4. d, e, g, j (assuming square is a subset of rectangle)
5. c, d, e, f, g, i, j, k, l, m, o
6. False
7. True
8. True
9. False
10. True

Page 32

1. d, i and n
2. b, f and m
3. b, c, f, h, k, l, m, o
4. c, g, h, k, l, o
5. a, d, e, g, i, j, n,
6. Sometimes true
7. Always true
8. Sometimes true
9. Never true
10. Always true

Page 33

1. 14 cm
2. 20 cm
3. 12 cm
4. 12 cm
5. 18 cm
6. 10 cm
7. 16 cm
8. 16 cm

Think. A rectangle with a perimeter of 16 cm.

Page 34

1. 14 cm
2. 14 cm
3. 16 cm
4. 14 cm
5. 12 cm
6. 14 cm
7. 14 cm
8. 14 cm
9. 16 cm
10. 16 cm
11. 18 cm
12. 14 cm
13. 12 cm
14. 14 cm
15. 12 cm

Think. An 'L' shape with a perimeter of 20 cm.

Page 35

1. 16 cm
2. 12 cm
3. 10 cm
4. 30 cm
5. 5 cm
6. 12 cm
7. 12 cm
8. 10 cm
9. 28 cm

Think. Two sides; one short and one long. For a square (rectangle); one side.

Page 36

1. 12 cm
2. 12 cm
3. 10 cm
4. 12 cm
5. 10 cm
6. 12 cm
7. 8 cm
8. 12 cm
9. 34 cm
10. 24 cm
11. 44 cm

Think. Multiply the length of one side by the number of sides.

Page 37

1. 90°
 2. 180°
 3. 90°
 4. 180°
 5. 90°
 6. 180°
 7. 270°
 8. 90°
 9. 8
 10. 8
 11. 2
 12. 12
 13. 11
 14. 7
- Think. 12

Page 38

Questions 1–6 number line range [,] and values marked.

1. [400, 500] 409, 431, 458
2. (700, 800] 725, 746, 793
3. [200, 300] 207, 264, 281
4. [600, 700] 614, 668, 688.
5. [800, 900] 828, 867, 894
6. a) Accept answers within ± 10 of 250.
b) Accept answers within ± 10 of 425.
c) Accept answers within ± 10 of 505.
d) Accept answers within ± 10 of 775.
e) Accept answers within ± 10 of 925

Think. Answers will vary. 538, 458 and 505 all round to 500.

Page 39

Accept answers within ± 10 of the following:

1. a = 130, b = 255, c = 425, d = 540, e = 665, f = 785, g = 890
2. h = 80, i = 175, j = 325, k = 480, l = 635, m = 777, n = 905
3. o = 105, p = 243, q = 376, r = 482, s = 666, t = 808, u = 954
4. 637 no 862 yes
896 no 740 no
905 no 858 yes
823 no 866 yes

Think. Answers will vary.

Page 40

1. $a = 20$, $b = 40$, $c = 80$
2. $d = 135$, 140 ; $e = 161$, 160 ; $f = 189$, 190
3. $g = 509$, 510 ; $h = 537$, 540 ;
 $i = 568$, 570
4. $j = 1260$, 1300 ; $k = 1370$, 1400 ;
 $l = 1625$, 1600 ; $m = 1895$, 1900
5. $n = 1045$, 1000 ; $o = 1275$, 1300 ;
 $p = 1508$, 1500 ; $q = 1777$, 1800

Page 41

1. 520, 500
2. 190, 200
3. 760, 800
4. 350, 400
5. 680, 4
6. 730, 4
7. 572, 2
8. 160, 1
9. 300, 14
10. 900, 13
11. 800, 43
12. 200, 45

Think. 295, 296, 297, 298, 299, 300, 301, 302, 303, 304

Page 42

1. £1.60
 2. £1.30
 3. £1.90
 4. £1.20
 5. £1.50
 6. £1.40
- Think. 50p

Page 43

1. £1.20
 2. £2.30
 3. £4.60
 4. £3.60
 5. 40p
 6. £1.50
 7. £2.80
 8. £4.10
 9. 20p
- Think. £3.70

Page 44

1. £1.15
2. £3.85
3. £2.25
4. £0.55
5. £1.35
6. £3.05
7. £2.45
8. £4.05
9. £2.65
10. £3.40

11. £1.75
 12. £0.95
 13. £2.65
 14. £4.15
 15. £3.55
- Think. £3.30

Page 45

1. £3.20
 2. £1.30
 3. 80p
 4. £2.20
 5. £1.50
 6. £4.40
 7. £2.70
 8. £3.60
- Think. £1.30

Page 46

1. £6.30
 2. £5.20
 3. £4.85
 4. £1.35
 5. £2.60
 6. £3.95
- Think. £4.70

Page 47

1. £4.32
 2. £5.82
 3. £6.53
 4. £7.59
 5. £8.31
 6. £7.63
 7. £4.40
 8. £4.50
- Think. £8.17

Page 48

1. $573 = 500 + 70 + 3$,
there are seven 10s
 2. $856 = 800 + 50 + 6$,
there are five 10s
 3. $364 = 300 + 60 + 4$,
there are six 10s
 4. $817 = 800 + 10 + 7$,
there is one 10
 5. $932 = 900 + 30 + 2$,
there are three 10s
 6. 90, 9 lots of 10
 7. Yes, write them out
 8. 90
 9. 5
 10. 8
 11. 3
 12. 8
 13. 9
 14. 100
- Think. 90

Page 49

Questions should be answered using expanded column addition.
Think. all except Q5, 9 and 12

1. 571
2. 741
3. 783
4. 882
5. 629
6. 892
7. 594
8. 985
9. 649
10. 928
11. 492
12. 909
13. 983
14. 74
15. 96

Page 50

Questions should be answered using expanded column addition.

1. 791
 2. 858
 3. 734
 4. 819
 5. 629
 6. 897
 7. 973
 8. 869
 9. 908
 10. 167
 11. 158
- Think. $326 + 257$

Page 51

Questions should be answered using expanded column addition.

1. 1573
2. 829
3. 833
4. 742
5. 834
6. 948
7. 805
8. 858
9. 644
10. 938
11. 794
12. 827
13. 78
14. 104
15. 189
16. 238

Think. $28 + 27 + 36 = 91$
or
 $28 + 17 + 36 = 81$

Page 52

Questions should be answered using expanded column addition.

- 837
- 748
- 984
- 697
- 935
- 980
- 992
- 957
- 928
- 874
- 158
- 81

Page 53

Questions should be answered using expanded column addition.

- 462
- 509
- 166
- 803
- 461
- 423
- 721
- 227
- 318
- 325
- 977
- 849

Think. Only $352 + 267$ need be done with a written method. The others can be done mentally.

Page 54

Questions should be answered using expanded column addition.

- 984
- 1582
- 232
- 1483
- 949
- 940
- 1654
- 982
- 260
- 1423
- 888
- 520
- 965
- 907
- 849
- 280
- 921
- 1221
- 1112
- 998

Page 55

Questions should be answered using expanded column addition.

- 939
- 74
- 762
- 97
- 139
- 937
- 485
- 82
- 362
- 957
- 935
- 908
- 239
- 970
- 219
- 928 m
- £135

Page 56

Questions should be answered using expanded column addition.

- 1138
- 169
- 177
- 884
- 166
- 929
- 685
- 162
- 138
- 918
- 965
- 945
- 949
- 671
- 333
- £714
- 166

Page 57

- 108, 155, 129, 176
- 73, 85, 85, 97
- 144, 153, 133, 142

Think. 14, 50, 125

- $534 + 47 = 581$
- $29 + 842 = 871$
- $733 + 58 = 791$
- $918 + 63 = 981$
- $364 + 28 = 392$
- $65 + 726 = 791$
- $367 + 25 = 392$
- $428 + 54 = 482$
- 122
- 585 g

Page 58

- 63
 - £117
 - 109 cm
 - 122 km
- Think. Answers will vary.

Page 59

- $456 + 200 = 656$
 - $718 + 30 = 748$
 - $536 + 300 = 836$
 - $316 + 80 = 396$
 - $983 + 6 = 989$
 - $367 + 500 = 867$
 - $523 + 204 = 727$
 - $835 + 22 = 857$
 - $556 + 130 = 686$
 - $645 + 34 = 679$
 - $432 + 305 = 737$
 - $578 + 320 = 898$
 - $674 + 101 = 775$
 - $317 + 199 = 516$
 - $535 + 301 = 836$
 - $262 + 499 = 761$
 - $368 + 401 = 769$
 - $446 + 399 = 845$
 - 788
 - 596
 - 834
- Think. £102

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- $752 + 200 = 952$
 - $463 + 103 = 566$
 - $358 + 120 = 478$
 - $452 + 49 = 501$
 - $837 + 29 = 866$
 - $632 + 53 = 685$
 - $217 + 502 = 719$
 - $322 + 39 = 361$
 - $464 + 204 = 668$
 - $538 + 150 = 688$
 - $316 + 73 = 389$
 - $247 + 31 = 278$
 - $592 + 305 = 897$
 - $812 + 69 = 881$
 - $763 + 51 = 814$
 - $452 + 107 = 559$
 - $329 + 62 = 391$
 - $759 + 32 = 791$
 - Answers may vary.
- Think. $327 + 39$, $339 + 51$

Page 61

1. $721 + 104 = 825$
2. $324 + 112 = 436$
3. $432 + 313 = 745$
4. $157 + 602 = 759$
5. $847 + 121 = 968$
6. $663 + 198 = 861$
7. $721 + 143 = 864$
8. $574 + 203 = 777$
9. $752 + 199 = 951$
10. $434 + 298 = 732$
11. $646 + 223 = 869$
12. $375 + 401 = 776$
13. $536 + 340 = 876$
14. $238 + 599 = 837$
15. $573 + 298 = 871$
16. $435 + 113 = 548$
17. $643 + 197 = 840$
18. $364 + 398 = 762$
19. $634 + 132 = 766$
20. $227 + 496 = 723$
21. 567 g
22. No, she needs £1 more.

Page 62

Questions should be answered using expanded column addition.

1. 973
 2. 972
 3. 894
 4. 762
 5. 794
 6. 885
 7. 796
- Think. 20, 600, 846

Page 63

Questions 1–12 should be answered using expanded column addition.

1. 973
2. 618
3. 846
4. 816
5. 803
6. 650
7. 806
8. 807
9. 982
10. 715
11. 721
12. 964
13. 837
14. 584
15. £762

Think. A word problem for the addition $528 + 364$.

Page 64

- 1–4. Answers will vary.
 5. The sum of the two 10s digits is 9 or less
 6. The sum of the two 10s digits is greater than 9.
 7. Example answer:
 $131 + 424 = 555$, $101 + 565 = 666$, etc.
- Think. Answers will vary.

Page 65

1. 381
2. 749
3. £1077
4. 783 km
5. 617
6. £1399
7. 573
8. 529 g
9. £807

Think. A word problem for the addition $462 + 357$.

Page 66

1. quarter past 10
 2. ten minutes past 8
 3. twenty minutes past 5
 4. twenty-five minutes past 9
 5. quarter to 2
 6. half past 8
 7. quarter past 12
 8. twenty-five minutes past 7
 9. five minutes past 5
 10. twenty minutes past 3
 11. ten minutes past 11
 12. quarter to 4
 13. quarter to 10
 14. half past 10
- Think. 4

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1. twenty-five minutes past 5
2. quarter to 3
3. twenty minutes past 4
4. twenty-six minutes past 3
5. seven minutes past 4
6. twelve minutes past 8
7. seventeen minutes past 12
8. thirty-four minutes past 11
9. twenty-six minutes past 1
10. nine minutes past 10
11. nineteen minutes past 6
12. twenty-seven minutes to 3
13. Answers will vary – a time between 6:00 and 7:00
14. Answers will vary – a time between 2:10 and 2:15
15. Answers will vary – a time between 8:25 and 8:30

Page 68

1. eighteen minutes to 5
2. twenty-three minutes to 3
3. twenty-three minutes past 10
4. nine minutes to 1
5. eighteen minutes past 4
6. twenty-nine minutes to 7
7. three minutes past 9
8. seventeen minutes to 2
9. twenty-two minutes past 8
10. twelve minutes to 3
11. twenty-one minutes to 2
12. six minutes to 12
13. Answers will vary – a time between 3:15 and 3:20
14. Answers will vary – a time between 4:35 and 4:40
15. Answers will vary – a time between 12:50 and 12:55.

Page 69

1. 60 seconds
 2. 120 seconds
 3. 90 seconds
 4. 130 seconds
 5. 75 seconds
 6. 210 seconds
 7. 1 minute 30 seconds
 8. 1 minute 40 seconds
 9. 2 minutes
 10. 2 minutes 30 seconds
 11. 1 minute 25 seconds
 12. 1 minute 12 seconds
 13. 2 minutes 10 seconds
 14. 2 minutes 25 seconds
- Think. Answers will vary.
15. 5 minutes 56 seconds

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1. twenty-five past 12
 2. quarter past 10
 3. half past 2
 4. ten minutes past 3
 5. five minutes past 9
 6. twenty minutes to 5
 7. 8:50
 8. 7:35
 9. 7:45
 10. 8:45
 11. 8:25
 12. 6:55
- Think. 7:40

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1. twenty-five minutes past 6
2. quarter past 9
3. twenty minutes to 2
4. twenty minutes to 12
5. ten minutes to 2
6. ten minutes past 3

Think. Five minutes past 7, twenty minutes past 10, quarter past 2, ten minutes past 12, ten minutes past 2, twenty-five minutes past 4.

7. 3:25
8. 4:45
9. 7:20
10. 7:30
11. 6:20
12. 3:10

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1. half past 3
2. quarter to 4
3. ten minutes to 1
4. twenty-five minutes past 10
5. 3 o'clock
6. twenty minutes to 8
7. five minutes to 10
8. twenty-five minutes to 5
9. five minutes past 11
10. 30 minutes
11. 35 minutes
12. 20 minutes
13. 40 minutes

Think. No, she will be 5 minutes later.

Page 73

1. 3 o'clock
2. twenty minutes to 10
3. ten minutes to 9
4. ten minutes past 4
5. five minutes past 8
6. twenty minutes past 10
7. five minutes to 2
8. twenty-five minutes past 4
9. twelve minutes past 10
10. 35 minutes
11. 40 minutes
12. 55 minutes
13. 50 minutes

Think. Answers will vary but should lie between start time 12:15 (end time 12:30) and start time 12:45 (end time 1:00).

Page 74

1. $473 < 593$
2. $148 < 316$
3. $624 > 298$
4. $537 > 524$
5. $856 < 865$
6. $293 > 291$
7. 287, 351, 615
8. 362, 415, 497
9. 284, 428, 824
10. 154, 356, 373
11. 467, 482, 644
12. 903, 913, 931

Think. Answers will vary but should be a number between:

1. 473 and 593
2. 537 and 524
3. 148 and 316
4. 856 and 865
5. 624 and 298
6. 293 and 291

Page 75

1. 116, 148, 152
2. 417, 467, 482
3. 302, 329, 364
4. 633, 636, 663
5. 354, 372, 396
6. 444, 467, 482
7. 272, 274, 277
8. 908, 911, 980
9. Answers will vary.

Think. 9, 9, 9, Answers will vary but must have a difference of 20.

Page 76

1. Answers will come from this list 111, 333, 999, 133, 313, 331, 933, 393, 339, 311, 131, 113, 911, 191, 119, 199, 919, 991, 399, 939, 993, 139, 193, 319, 391, 913, 931
2. 6 [139, 193, 319, 391, 913, 931]
3. 139, 193, 319, 391, 913, 931
4. Answers will vary but a number should lie between each of the numbers in the list 139, 193, 319, 391, 913, 931
5. Answers will come from this list 222, 444, 888, 244, 424, 442, 844, 484, 448, 422, 242, 224, 822, 282, 228, 288, 828, 882, 488, 848, 884, 248, 284, 428, 482, 824, 842
6 [248, 284, 428, 482, 824, 842]
248, 284, 428, 482, 824, 842

Answers will vary but a number should lie between each of the

numbers in the list 248, 284, 428, 482, 824, 842

Think. Unless a digit is repeated there will always be 6 possible 3-digit numbers. Note that if a zero is included there may be discussion as to whether a number like 054 is a 3-digit number.

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Questions 1–13 each to have accompanying Frog number line.

1. $182 - 116 = 34$
2. $155 - 116 = 39$
3. $163 - 127 = 36$
4. $171 - 138 = 33$
5. $144 - 119 = 25$
6. $182 - 145 = 37$
7. $191 - 167 = 24$
8. $164 - 136 = 28$
9. $182 - 157 = 25$
10. $193 - 166 = 27$
11. $121 - 94 = 27$
12. $113 - 88 = 25$
13. $111 - 76 = 35$

Think. Answers will vary but the difference between the numbers chosen must be 35.

Page 78

Questions each to have accompanying Frog number line.

1. $372 - 318 = 54$
2. $581 - 516 = 65$
3. $473 - 427 = 46$
4. $894 - 846 = 48$
5. $773 - 717 = 56$
6. $661 - 615 = 46$
7. $285 - 227 = 58$
8. $984 - 938 = 46$
9. $381 - 319 = 62$
10. $572 - 515 = 57$
11. $793 - 736 = 57$
12. $883 - 838 = 45$
13. $121 - 68 = 53$
14. $111 - 46 = 65$
15. $123 - 77 = 46$
16. $132 - 57 = 75$
17. $143 - 88 = 55$
18. $134 - 75 = 59$
19. Answers will vary but pairs of numbers should have a difference of 55, e.g. 122 and 67.

Think. $120 - 57 = 63$, $120 - 67 = 53$, $120 - 77 = 43$, $120 - 87 = 33$, $120 - 97 = 23$, $120 - 107 = 13$

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Questions each to have accompanying Frog number line.

1. $162 - 138 = 24$
2. $166 - 147 = 19$
3. $152 - 136 = 16$
4. $161 - 138 = 23$
5. $144 - 125 = 19$
6. $182 - 167 = 15$
7. $194 - 166 = 28$
8. $242 - 217 = 25$
9. $273 - 256 = 17$
10. $171 - 144 = 27$
11. $283 - 258 = 25$

Think. Any number from 141 to 149.

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Questions each to have accompanying Frog number line.

1. $283 - 248 = 35$
2. $155 - 127 = 28$
3. $272 - 236 = 36$
4. $393 - 367 = 26$
5. $164 - 125 = 39$
6. $271 - 238 = 33$
7. $384 - 348 = 36$
8. $252 - 216 = 36$
9. $273 - 235 = 38$
10. $481 - 444 = 37$
11. $373 - 326 = 47$
12. $309 - 284 = 25$
13. $403 - 386 = 17$
14. $311 - 285 = 26$
15. 25
16. £42

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Questions each to have accompanying Frog number line.

1. $582 - 528 = 54$
2. $761 - 714 = 47$
3. $472 - 418 = 54$
4. $683 - 627 = 56$
5. $793 - 716 = 77$
6. $892 - 845 = 47$
7. $983 - 936 = 47$
8. $373 - 328 = 45$
9. $285 - 258 = 27$
10. $785 - 717 = 68$
11. $592 - 515 = 77$
12. $493 - 426 = 67$
13. $381 - 318 = 63$
14. $201 - 146 = 55$
15. $513 - 477 = 36$

16. $413 - 388 = 25$
17. $234 - 187 = 47$
18. $421 - 368 = 53$
19. $322 - 267 = 55$
20. $531 - 455 = 76$
21. 39 cm
22. 56
23. £33

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1. 37
2. £33
3. £35
4. 38 cm
5. 33 kg
6. 37
7. 49
8. 62 miles

Think. A word problem for $472 - 417 = 55$.

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1. $347 - 21 = 326$
2. $286 - 39 = 247$
3. $152 - 127 = 25$
4. $351 - 318 = 33$
5. $674 - 49 = 625$
6. $188 - 51 = 137$
7. $367 - 14 = 353$
8. $265 - 238 = 27$
9. $632 - 16 = 616$
10. $132 - 85 = 47$
11. $564 - 528 = 36$
12. $772 - 15 = 757$
13. $275 - 29 = 246$
14. $471 - 51 = 420$
15. $582 - 21 = 561$
16. $381 - 338 = 43$
17. False $108 - 56 = 52$
18. True
19. False - it is possible.

Think. One true and one false statement about subtraction.

Page 84

1. half of 24p is 12p
2. $46 \div 2 = 23$
3. half of 82p is 41p
4. half of 68 is 34
5. half of 74 cm is 37 cm
6. $38p \div 2 = 19p$
7. half of 56 is 28
8. half of 72 is 36
9. $94 \div 2 = 47$

10. half of 36 is 18
11. $£92 \div 2 = £46$
12. $78 \div 2 = 39$
13. 84
14. 14
15. 43 cm
16. £48
17. £58
18. £19

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1. $56 \div 2 = 28$
2. half of 38p is 19p
3. $76 \text{ cm} \div 2 = 38 \text{ cm}$
4. $54 \times 2 = 108$
5. half of 72p is 36p
6. $312 \times 2 = 624$
7. $124 \times 2 = 248$
8. $168 \div 2 = 84$
9. $£72 \times 2 = £144$
10. $92 \div 2 = 46$
11. half of 116 is 58
12. $146 \div 2 = 73$
13. 26
14. 20
15. 1
16. £31
17. 112

Page 86

1. $£13 \times 4 = £52$
2. $£16 \times 3 = £48$
3. $£18 \times 4 = £72$
4. $£23 \times 5 = £115$
5. $£23 \times 4 = £96$
6. $£18 \times 3 = £54$
7. $£23 \times 4 = £92$

Think. Add the answers for the 10 times-table and 3 times-table.

Page 87

1. $5 \times 23 = 115$
2. $17 \times 3 = 51$
3. $26 \times 5 = 130$
4. $19 \times 4 = 76$
5. $3 \times 26 = 78$
6. $32 \times 4 = 128$
7. $33 \times 5 = 165$
8. $3 \times 28 = 84$
9. $27 \times 4 = 108$
10. $5 \times 34 = 170$
11. $29 \times 4 = 116$

Think. 7×25 and 5×35

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1. $5 \times 14 = 70$
2. $15 \times 3 = 45$
3. $5 \times 16 = 80$
4. $16 \times 4 = 64$
5. $3 \times 17 = 51$
6. $19 \times 4 = 76$
7. $18 \times 3 = 54$

Think. The answers to consecutive numbers being multiplied by 3 have a difference of 3.

Page 89

1. $5 \times 23 = 115$
2. $32 \times 4 = 128$
3. $27 \times 3 = 81$
4. $5 \times 24 = 120$
5. $26 \times 4 = 104$
6. $3 \times 29 = 87$
7. $5 \times 27 = 135$
8. $28 \times 4 = 112$

Think. Both 1s digits are odd.

Page 90

1. $5 \times 28 = 140$
2. $37 \times 3 = 111$
3. $4 \times 34 = 136$
4. $42 \times 5 = 210$
5. $3 \times 44 = 132$
6. $28 \times 4 = 112$
7. $36 \times 5 = 180$
8. $38 \times 3 = 114$
9. $4 \times 29 = 116$
10. $43 \times 4 = 172$
11. $5 \times 37 = 185$
12. $38 \times 4 = 152$
13. $45 \times 5 = 225$

Think. Children should notice doubling patterns in the questions and answers.

Page 91

1. $28 \times 4 = 112$
2. $37 \times 4 = 148$
3. $3 \times 36 = 108$
4. $23 \times 5 = 115$
5. $4 \times 32 = 128$
6. $3 \times 43 = 129$
7. $37 \times 5 = 185$
8. $4 \times 44 = 176$
9. $5 \times 42 = 210$
10. 68p
11. 70 g
12. 76
13. 72

Think. 4×34

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1. $52 \times 4 = 208$
2. $3 \times 46 = 138$
3. $48 \times 5 = 240$
4. $4 \times 47 = 188$
5. $3 \times 53 = 159$
6. $56 \times 5 = 280$
7. $4 \times 58 = 232$
8. $3 \times 59 = 177$
9. 168
10. £1.02 or 102p
11. £220
12. 212
13. £1.60 or 160p
14. 182 g

Think. 3×60 , 4×45 , 5×36

Page 93

1. $7 \times 8 = 56$
2. $8 \times 6 = 48$
3. $64 \rightarrow 128 \rightarrow 256$
4. half of 82p is 41p
5. $94 \div 2 = 47$
6. $463 + 103 = 566$
7. half of 68 is 34
8. half of 36 is 18.
9. $\frac{3}{4}$ of 8 = 6
10. $\frac{3}{5}$ of 10 = 6
11. £6.20
12. $352 + 49 = 401$

Questions 13–16 should be answered using column addition.

13. 166
14. 721
15. 977
16. 1188
17. $155 - 116 = 39$
18. $182 - 157 = 25$
19. $347 - 21 = 326$
20. $152 - 127 = 25$
21. $164 - 136 = 28$
22. $632 - 16 = 616$
23. $27 \times 3 = 81$
24. $4 \times 34 = 136$
25. $3 \times 29 = 87$
26. $5 \times 38 = 190$

Page 94

1. Tom
2. Bo
3. Jon
4. Tom
5. Bo
6. Tom
7. Ben
8. Kim

9. Every other number in the 3s count is even; whenever 3 is multiplied by an even number.
10. Every number in the 4s count is even.

11.

Jon	Kim	Bo	Ben	Tom
26	36	46	56	66
78	88	98	108	118
158	168	178	188	198
426	436	446	456	466

12. Answers and number of rows added will vary.

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1. 240
2. 350
3. 135
4. Answers will vary.
5. Answers will vary.
6. Answers will vary.
7. 198 and 321 cannot be the middle number as you cannot create a 3-digit number smaller than them using each digit only once. 941 cannot be the middle number as you cannot create a larger 3-digit number using each digit only once. 517 and 831 can be middle numbers as you can still create a number both larger and smaller than them with the digits that have not been used in them.