

## Page 4

1. 4 348 912
  2. 9 615 257
  3.  $4\ 633\ 231 < 8\ 633\ 885$
  4.  $3\ 467\ 333 < 3\ 579\ 164$
  5.  $6\ 676\ 001 > 6\ 612\ 002$
  6.  $1\ 552\ 817 > 1\ 550\ 994$
  7. 1 896 741, 3 740 100, 8 506 253
  8. 883 689, 989 738, 5 245 122
  9. 4 997 978, 7 100 003, 7 502 257
  10. 3 509 314, 3 590 314, 3 950 314
- Think. 7 770 000 and 7 000 077

## Page 5

1. 7 242 613
  2. 1 612 101
  3. 3 940 812
  4. 6 601 209
  5. 4 418 900
  6. 9 767 057
  7. Answers will vary.
  8. 650 004, 6 005 003, 6 050 003, 6 500 003
  9. 5 100 673, 5 502 257, 5 896 741, 5 997 978
  10. 50 738, 450 689, 4 005 122, 4 050 741
  11. 7 950 314, 7 952 314, 7 959 314, 7 959 701
- Think. 8 765 432

## Page 6

1. 9 201 606
2. 5 816 009
3. 3 044 834
4. 7 650 079
5. 4 003 908
6. 8 000 557
7. 2 000 040
8. 6 010 010
9. Answers will vary.
10. 373 007, 3 070 077, 3 070 300, 3 700 073
11. 9 100 001, 9 100 100, 9 101 001, 9 101 010
12. 99 765, 988 765, 8 765 122, 8 776 543
13. 6 666 666, 6 666 667, 6 666 766, 6 676 666

Think. Five hundred thousand and one or 500 001

## Page 7

1.  $7\ 006\ 004 + 20\ 000 + 300 = 7\ 026\ 304$
  2.  $3\ 840\ 050 + 6000 + 300 + 7 = 3\ 846\ 357$
  3.  $8\ 994\ 738 - 30\ 000 - 4000 = 8\ 960\ 735$
  4.  $6\ 231\ 956 - 100\ 000 - 20\ 000 - 30 = 6\ 111\ 926$
  5.  $4\ 121\ 622 + 600\ 000 + 3000 + 4 = 4\ 724\ 626$
  6.  $8\ 035\ 562 - 5\ 000\ 000 - 20\ 000 - 60 = 3\ 015\ 502$
  7.  $7\ 184\ 639 - 4000 = 7\ 180\ 639$
  8.  $8\ 241\ 876 - 40\ 000 = 8\ 201\ 876$
  9.  $2\ 491\ 068 - 400\ 000 = 2\ 091\ 068$
  10.  $1\ 777\ 040 - 40 = 1\ 777\ 000$
  11.  $3\ 552\ 402 - 400 = 3\ 552\ 002$
  12.  $6\ 249\ 899 - 40\ 000 = 6\ 209\ 899$
- Think. 9 898 989; 1 010 101

## Page 8

1.  $3\ 624\ 572 + 20\ 106 = 3\ 644\ 678$
2.  $9\ 572\ 156 - 3\ 200\ 030 = 6\ 372\ 126$
3.  $3\ 129\ 672 + 420\ 200 = 3\ 549\ 872$
4.  $5\ 467\ 156 - 1\ 040\ 003 = 4\ 427\ 153$
5.  $4\ 104\ 783 + 50\ 011 = 4\ 154\ 794$
6.  $6\ 663\ 984 - 1\ 000\ 750 = 5\ 663\ 234$
7.  $8\ 372\ 978 - 210\ 400 = 8\ 162\ 578$
8.  $7\ 402\ 924 - 400\ 000 - 2000 - 20 - 4 = 7\ 000\ 900$
9.  $4\ 223\ 864 - 4\ 000\ 000 - 200\ 000 - 20\ 000 - 4 = 3860$
10.  $2\ 347\ 256 - 2\ 000\ 000 - 40\ 000 - 200 = 307\ 056$
11.  $3\ 421\ 248 - 400\ 000 - 20\ 000 - 200 - 40 = 3\ 001\ 008$
12.  $2\ 142\ 256 - 2\ 000\ 000 - 40\ 000 - 2000 - 200 = 100\ 056$
13.  $5\ 444\ 242 - 400\ 000 - 40\ 000 - 4000 - 200 - 40 - 2 = 5\ 000\ 000$

Think. Answers will vary, for example, 7 897 987.

## Page 9

1. 300 000
2. 3 000 000
3. 30 000
4. 3000
5. Answers will vary

6. 2 384 169, 3 125 689, 6 975 431, 7 843 206, 9 318 452
- Think. 1 500 000

## Page 10

1. 7 233 563 rounds to 7 000 000.
  2. 3 811 642 rounds to 4 000 000.
  3. 6 582 684 rounds to 7 000 000.
  4. 3 497 992 rounds to 3 000 000.
  5. 4 268 773 rounds to 4 000 000.
  6. 8 099 486 rounds to 8 000 000.
  7. 5 583 532 rounds to 6 000 000.
  8. 9 646 101 rounds to 10 000 000.
- Think. 91, if including 1 million and 10 million.

## Page 11

All questions should be answered using column subtraction.

1. 1853
2. 23 127
3. 77 313
4. 1741
5. 83 929
6. 24 474
7. 31 732
8. 5434
9. 66 723
10. 47 650

Think. Answers will vary.

## Page 12

All questions should be answered using column subtraction.

1. 308 078
2. 91 974
3. 136 579
4. 397 927
5. 2 858 278
6. 126 409
7. 5 560 678
8. 2 706 347
9. 3 458 672
10. 6 357 239

Think.  $90\ 123 - 87\ 654 = 2469$

**Page 13**

Children will choose an appropriate method.

1.  $79\ 186 - 78\ 897 = 289$
2.  $48\ 678 - 41\ 980 = 6698$
3.  $32\ 847 - 12\ 347 = 20\ 500$
4.  $52\ 186 - 48\ 875 = 3311$
5.  $64\ 167 - 48\ 291 = 15\ 876$
6.  $86\ 343 - 20\ 012 = 66\ 331$
7.  $677\ 565 - 74\ 290 = 603\ 275$
8.  $59\ 142 - 48\ 936 = 10\ 206$
9.  $95\ 728 - 14\ 973 = 80\ 755$
10.  $648\ 562 - 40\ 060 = 608\ 502$
11.  $94\ 164 - 77\ 409 = 16\ 755$
12.  $267\ 352 - 59\ 194 = 208\ 158$

Think. 11 112

**Page 14**

1.  $364\ 213 - 24\ 314 = 339\ 899$
2.  $772\ 847 - 89\ 674 = 683\ 173$
3.  $867\ 343 - 260\ 013 = 607\ 330$
4.  $522\ 462 - 486\ 875 = 35\ 587$
5.  $804\ 251 - 629\ 453 = 174\ 798$
6.  $654\ 167 - 434\ 100 = 220\ 067$
7.  $372\ 847 - 269\ 949 = 102\ 898$
8.  $965\ 708 - 214\ 973 = 750\ 735$
9.  $509\ 142 - 438\ 936 = 70\ 206$
10.  $6\ 748\ 562 - 401\ 060 = 6\ 347\ 502$
11.  $6\ 267\ 302 - 896\ 137 = 5\ 371\ 165$
12.  $9\ 944\ 164 - 747\ 409 = 9\ 196\ 755$

Think. 110 110 – 11 001 = 99 109

**Page 15**

1. j
2. g
3. h
4. i
5. l
6. k
7. n
8. m
9. d
10. 1200, 12 000; 5200, 52 000
11. £47, £470
12. £1500, £1560

Think. Answers will vary.

**Page 16**

1.  $3.14 < 3.5$
2.  $7.01 < 7.13$
3.  $7.01 > 6.99$
4.  $9.04 < 9.21$
5.  $3.6 > 3.58$
6.  $4.62 > 4.26$
7.  $4.5 > 4.32$
8.  $8.12 < 8.2$
9.  $3.347 < 3.374$
10.  $2.109 > 2.099$
11. A number between 4.185 and 4.2.
12. A number between 8.9 and 8.931.
13. A number between 2.117 and 2.17.
14. A number between 7.011 and 7.10.
15. A number between 3.64 and 6.432.
16. A number between 3.06 and 3.107.
17. A number between 5.807 and 6.0.
18. A number between 5.48 and 5.845.
19. A number between 6.2 and 6.203.
20. A number between 1.01 and 1.101.

Think. Answers will vary.

**Page 17**

Answers will vary

1.  $2.648 < ? < 2.9$
2.  $3.01 < ? < 3.101$
3.  $6.7 < ? < 6.95$
4.  $4.23 < ? < 5.1$
5.  $8.02 < ? < 8.6$
6.  $9.341 < ? < 9.56$
7.  $3.491 < ? < 3.55$
8.  $2.8 < ? < 2.897$
9.  $4.07 < ? < 4.6$
10.  $3.009 < ? < 3.08$
11.  $8.31 < ? < 8.6$
12.  $5.609 < ? < 5.67$
13.  $8.773 < ? < 8.8$
14.  $6.235 < ? < 6.24$
15.  $7.042 < ? < 7.4$
16.  $1.478 < ? < 1.482$

Think. 15 numbers: 3.4, 3.5, 3.6, 3.45, 3.46, 3.54, 3.56, 3.64, 3.65, 3.456, 3.465, 3.546, 3.564, 3.645, 3.654

**Page 18**

1. and 2. Answers will vary.
3.  $3.12, 3.199, 3.201, 3.9, 6.02, 6.072, 6.27, 6.29$
4. The closest numbers to 5 are 4.653 and 5.346.
5.  $0.347, 0.346$
6.  $4.635, 5.364$
7.  $0.365, 0.364$
8. The numbers differ by 0.001.

**Page 19**

1. 0.5
2. 0.33
3. 0.25
4. 0.2
5. 0.14
6. 0.13
7. 0.17
8. 0.11
9. 0.1
10. 1.12
11. 0.46
12. 7.72
13. 2.05
14. 4.78
15. 5.00
16. 1.02
17. 6.51
18. 1.08
19.  $\frac{1}{8}$
20.  $\frac{1}{4}$
21.  $\frac{1}{10}$

Think. 1.33 (to 2 decimal places), 5.75, 2.4

**Page 20**

1.  $\frac{1}{2}$  of  $\frac{1}{5} = \frac{1}{10}$
2.  $\frac{1}{4}$  of  $\frac{1}{7} = \frac{1}{28}$
3.  $\frac{1}{4}$  of  $\frac{1}{9} = \frac{1}{36}$
4.  $\frac{1}{2}$  of  $\frac{1}{10} = \frac{1}{20}$
5.  $\frac{1}{4} \times \frac{1}{6} = \frac{1}{24}$
6.  $\frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$
7.  $\frac{1}{2} \times \frac{1}{9} = \frac{1}{18}$
8.  $\frac{1}{4} \times \frac{1}{5} = \frac{1}{20}$

Think. 4 and 8; answers will vary.

### Page 21

1.  $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$
2.  $\frac{1}{4} \times \frac{1}{6} = \frac{1}{24}$
3.  $\frac{1}{3} \times \frac{1}{7} = \frac{1}{21}$
4.  $\frac{1}{2} \times \frac{1}{9} = \frac{1}{18}$
5.  $\frac{1}{4} \times \frac{1}{8} = \frac{1}{32}$
6.  $\frac{1}{3} \times \frac{1}{6} = \frac{1}{18}$
7.  $\frac{1}{4} \times \frac{1}{7} = \frac{1}{28}$
8.  $\frac{1}{3} \times \frac{1}{9} = \frac{1}{27}$
9.  $\frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$
10.  $\frac{1}{4} \times \frac{1}{9} = \frac{1}{36}$

Think.  $\frac{1}{2} \times \frac{1}{10}, \frac{1}{4} \times \frac{1}{5}$ , and so on.

### Page 22

1.  $\frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$
2.  $\frac{1}{8} \times \frac{1}{2} = \frac{1}{16}$
3.  $\frac{1}{7} \times \frac{1}{4} = \frac{1}{28}$
4.  $\frac{1}{9} \times \frac{1}{3} = \frac{1}{27}$
5.  $\frac{1}{5} \times \frac{1}{2} = \frac{1}{10}$
6.  $\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$
7.  $\frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$
8.  $\frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$
9.  $\frac{1}{5} \times \frac{1}{4} = \frac{1}{20}$
10.  $\frac{1}{7} \times \frac{1}{3} = \frac{1}{21}$

Think. Answers will vary, for example,  $\frac{1}{2} \times \frac{1}{9}, \frac{1}{6} \times \frac{1}{3}$ , and so on.

### Page 23

1.  $\frac{1}{2}$  of  $\frac{1}{4} = \frac{1}{8}$
2.  $\frac{1}{5}$  of  $\frac{1}{5} = \frac{1}{25}$
3.  $\frac{1}{3}$  of  $\frac{1}{4} = \frac{1}{12}$
4.  $\frac{1}{4}$  of  $\frac{1}{3} = \frac{1}{12}$
5.  $\frac{1}{2}$  of  $\frac{1}{8} = \frac{1}{16}$
6.  $\frac{1}{3}$  of  $\frac{1}{6} = \frac{1}{18}$
7.  $\frac{1}{4}$  of  $\frac{1}{9} = \frac{1}{36}$
8.  $\frac{1}{5}$  of  $\frac{1}{10} = \frac{1}{50}$
9.  $\frac{1}{5}$  of  $\frac{3}{10} = \frac{3}{50}$
10.  $\frac{1}{4}$  of  $\frac{2}{3} = \frac{1}{6}$
11.  $\frac{1}{5}$  of  $\frac{3}{4} = \frac{3}{20}$
12.  $\frac{1}{3}$  of  $\frac{3}{10} = \frac{1}{10}$
13.  $\frac{1}{2}$  of  $\frac{3}{8} = \frac{3}{16}$
14.  $\frac{1}{4}$  of  $\frac{2}{5} = \frac{1}{10}$
15.  $\frac{1}{5}$  of  $\frac{3}{8} = \frac{3}{40}$
16.  $\frac{1}{4}$  of  $\frac{3}{10} = \frac{3}{40}$
17.  $\frac{1}{3}$  of  $\frac{2}{3} = \frac{2}{9}$
18.  $\frac{1}{3}$  of  $\frac{3}{4} = \frac{1}{4}$
19.  $\frac{1}{5}$  of  $\frac{1}{9} = \frac{1}{45}$
20.  $\frac{1}{4}$  of  $\frac{3}{5} = \frac{3}{20}$
21.  $\frac{1}{2}$  of  $\frac{1}{9} = \frac{1}{18}$
22.  $\frac{1}{3}$  of  $\frac{3}{10} = \frac{1}{10}$
23.  $\frac{1}{3}$  of  $\frac{2}{5} = \frac{2}{15}$

24.  $\frac{1}{4}$  of  $\frac{4}{5} = \frac{1}{5}$

Think. Answers will vary, for example,  $\frac{1}{2} \times \frac{1}{9}, \frac{1}{6} \times \frac{1}{3}, \frac{1}{4} \times \frac{2}{9}, \frac{1}{12} \times \frac{2}{3}$  etc.

### Page 24

1.  $8 \times 5.2 = 41.6$
2.  $4 \times 3.6 = 14.4$
3.  $3 \times 5.8 = 17.4$
4.  $9 \times 6.4 = 57.6$
5.  $6 \times 7.8 = 46.8$
6.  $4 \times 2.9 = 11.6$
7.  $3 \times 7.7 = 23.1$
8.  $5 \times 4.6 = 23$
9.  $3 \times 6.3 = 18.9$
10.  $5 \times 2.8 = 14$
11.  $4 \times 5.4 = 21.6$
12.  $3 \times 6.6 = 19.8$
13.  $5 \times 3.7 = 18.5$
14.  $4 \times 4.3 = 17.2$
15. 21.6 seconds
16. 22.4 seconds
17. 64.4 seconds
18. 32 seconds
19. 56.4 seconds
20. 26.1 seconds
21. 13.3 seconds
22. 28.2 seconds
23. 29.2 seconds

Think. Guy, Tracy, Ilesh, Tim, Sunam and Yasmin.

### Page 25

1.  $5 \times 1.3 = 6.5$
2.  $3 \times 2.7 = 8.1$
3.  $4 \times 3.9 = 15.6$
4.  $3 \times 7.6 = 22.8$
5.  $6 \times 4.8 = 28.8$
6.  $5 \times 11.7 = 58.5$
7.  $4 \times 11.6 = 46.4$
8.  $5 \times 12.9 = 64.5$
9.  $3 \times 12.8 = 38.4$
10.  $4 \times 11.5 = 46$
11.  $6 \times 12.3 = 73.8$
12.  $4 \times 12.7 = 50.8$

Think.  $3.65 \times 4$  gives the bigger answer.

### Page 26

1.  $5 \times 1.3 = 6.5$
2.  $3 \times 2.7 = 8.1$
3.  $4 \times 3.9 = 15.6$
4.  $3 \times 7.6 = 22.8$
5.  $4 \times 0.56 = 2.24$
6.  $5 \times 1.15 = 5.75$
7.  $6 \times 1.45 = 8.7$
8.  $4 \times 2.43 = 9.72$
9. 9.92 m
10. 6.96 m

### Page 27

Lucy's answer is nearest to 20 (Q6), followed by Ben's (Q4).

1.  $5 \times 4.32 = 21.6$
  2.  $6 \times 3.78 = 22.68$
  3.  $2 \times 9.41 = 18.82$
  4.  $3 \times 6.75 = 20.25$
  5.  $4 \times 5.23 = 20.92$
  6.  $7 \times 2.85 = 19.95$
  7.  $8 \times 2.23 = 17.84$
  8.  $9 \times 1.84 = 16.56$
  9.  $4 \times 4.72 = 18.88$
  10.  $7 \times 3.25 = 22.75$
  11.  $5 \times 4.52 = 22.6$
  12.  $8 \times 8.46 = 67.68$
  13. 12.96 cm
  14. 45.84 cm
  15. 26.82 cm
  16. 52.02 cm
  17. 38.4 cm
  18. 22.8 cm
  19. 27.84 cm
  20. 61.47 cm
  21. 54.72 cm
- Think. 3.27

### Page 28

1.  $4.72 \times 6 = 28.32$
2.  $3.84 \times 5 = 19.20$
3.  $4.32 \times 7 = 30.24$
4.  $6.89 \times 8 = 55.12$
5.  $5.76 \times 9 = 51.84$
6.  $7.58 \times 4 = 30.32$
7. 5.12 m short, 3 pieces (5.58 m)
8. £5.34

Think. Answers will vary.

### Page 29

1. £40.50
2. £52.92
3. £153.72
4. £33.75
5. £91.44
6. £92.61
7. £16.35
8. £258.84
9. £80.01
10. £131.76
11. £44.01
12. £43.60

Think.  $44 \times 42 \times 4 = 177.68$

### Page 30

Questions to be answered using a grid method

1. 11 718
2. 15 236
3. 23 208
4. 19 527
5. 97 313
6. 142 584
7. 102 396
8. 258 606

Think.  $473 \times 28$

### Page 31

1.  $482 \times 16 = 7712$
2.  $567 \times 23 = 13\ 041$
3.  $346 \times 27 = 9342$
4.  $907 \times 29 = 26\ 303$
5.  $3627 \times 13 = 47\ 151$
6.  $2446 \times 14 = 34\ 244$
7.  $5624 \times 26 = 146\ 224$
8.  $7894 \times 24 = 189\ 456$

Think. A = 4, B = 4, C = 5, D = 3

### Page 32

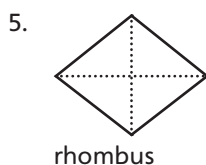
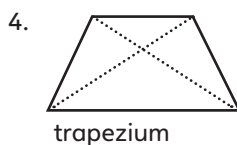
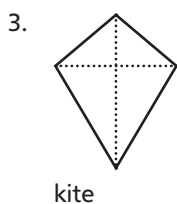
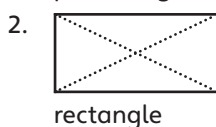
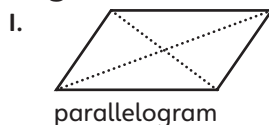
1.  $7486 \times 23 = 172\ 178$
2.  $6738 \times 24 = 161\ 712$
3.  $4547 \times 27 = 122\ 769$
4.  $6748 \times 28 = 188\ 944$
5.  $6686 \times 26 = 173\ 836$
6.  $4783 \times 29 = 138\ 707$
7.  $5685 \times 31 = 176\ 235$
8.  $5693 \times 32 = 182\ 176$
9. 63 528 hours
10. 120 192
11. 45 696 km
12. 200 651

### Page 33

1. £5696
2. £11 568
3. £10 166
4. £4071
5. £10 808
6. £14 687
7. £13 800
8. £18 738
9. £21 472
10. £101 683

Think. £633.33

### Page 34



6.

| Shape         | Diagonals bisect? | Bisect at 90°? |
|---------------|-------------------|----------------|
| Parallelogram | ✓                 | ✗              |
| Rectangle     | ✓                 | Sometimes      |
| Kite          | One does          | ✗              |
| Trapezium     | ✗                 | ✗              |
| Rhombus       | ✓                 | ✓              |
| Square        | ✓                 | ✓              |

### Page 35

1. 112°
  2. 85°, 85°
  3. 120°, 120°
  4. 80°, 100°, 80°
  5. 103°
  6. 191°
  7. 90°, 90°, 90°
  8. 90°, 90°, 90°
- Think. Yes, no

### Page 36

1. 59°
  2. 55°, 55°, 125°
  3. 37°, 37°
  4. 61°, 119°, 61°
  5. 68°
  6. 19°
  7. 102°
  8. 28°, 76°
- Think. Answers will vary.

### Page 37

1. 40°
  2. 35°
  3. 105°
  4. 100°
  5. 75°
  6. 95°
  7. 135°
  8. 120°
  9. 50°
- Think. Answers will vary.

### Page 38

1. 120°, 150°
  2. 160° 160°
  3. 150°
  4. 230°
  5. 120° 105°
  6. 20°
  7. 28° 145° 64°
- Think. Yes

### Page 39

1. 1 cm
2. 4 cm
3. 3 cm
4. Correctly drawn concentric circles with radiuses 2 cm, 3 cm and 4 cm.

**Page 40**

1. radius
2. diameter
3. circumference
4. circle with radius of 3 cm
5. circle with radius of 6 cm
6. circle with radius of 9.5 cm
7. circle with diameter of 11 cm
8. circle with diameter of 17 cm
9. circle with diameter of 5.5 cm
10. circle with diameter of 16 cm
11. circle with diameter of 14.5 cm

Think. Answers will vary. The circumference of a circle is always  $\pi \times$  the diameter. Students might say 'a bit more than 3'  $\times$  the diameter.

**Page 41**

1.  $135^\circ$ , 2 cm, 7 cm,  $45^\circ$ ,  $135^\circ$
2.  $37^\circ$  and  $53^\circ$  (to nearest degree), 10 cm
3.  $34^\circ$
4. 6 cm, 12 cm,  $90^\circ$ ,  $90^\circ$ ,
5.  $40^\circ$ , 14.6 cm, 14.6 cm

**Page 42**

1.  $3407 + 23\ 050 = 26\ 457$
2.  $45\ 251 + 2104 = 47\ 355$
3.  $34 + 62 = 96$
4.  $426 + 299 = 725$
5.  $3.4 + 24.6 = 28$
6.  $4.7 + 23.3 = 28$
7.  $4632 + 31\ 230 = 35\ 862$
8.  $3406 + 2344 = 5750$
9.  $73 + 26 = 99$
10.  $352 + 210 = 553$
11.  $52.3 + 6.7 = 59$
12.  $546 + 101 = 647$
13.  $7917 + 2072 = 9989$
14.  $60 + 120 + 40 = 220$
15.  $42161 + 9999 = 52\ 160$
16.  $14.6 + 15.4 = 30$
17.  $999 + 999 = 1998$
18.  $62 + 62 = 124$

Think.  $5.5 + 5.5$ ,  $6.4 + 4.6$ ,  $8.2 + 2.8$ ,  $9.1 + 1.9$

**Page 43**

Think. Rounding: 1, 4, 9, 11; place value: 2, 3, 7, 8, 10

1.  $13.08 + 5.9 = 18.98$
2.  $5\ 152\ 357 + 33\ 500 = 5\ 185\ 857$
3.  $8500.5 + 487 = 8987.5$
4.  $4.76 + 7.99 = 12.75$
5.  $15.146 + 6.7 = 21.846$
6.  $8.3 + 6.6 + 5.7 = 20.6$
7.  $68.37 + 0.509 = 68.879$
8.  $103\ 204 + 26\ 740 = 129\ 944$
9.  $13.99 + 6.08 = 20.07$
10.  $64\ 003 + 2950 = 66\ 953$
11.  $36.9 + 12.7 = 49.6$
12.  $57\ 000 + 26\ 000 = 83\ 000$

**Page 44**

Questions to be answered using column addition.

1. 659 868
2. 882 149
3. 49 192
4. 1 517 545
5. 4 512 006
6. 1 306 281
7. 4 420 505
8. 12 124 472
9. 15 758 422

Think. Answers will vary.

**Page 45**

Questions 1–4 to be answered using column subtraction.

1. 11 320
2. 46 092
3. 372 081
4. 433 560
5.  $32\ 846 - 1999 = 30\ 847$
6.  $27.6 - 4.99 = 22.61$
7.  $46.5 - 9.99 = 36.51$
8.  $242 - 199 = 43$
9.  $73 - 48 = 25$
10.  $218 - 194 = 24$
11.  $312 - 257 = 55$
12.  $92 - 67 = 25$

Think. Yes, 198.

**Page 46**

Questions to be answered using column subtraction.

1. 12 087
2. 46 679
3. 7894
4. 122 074
5. 242 315
6. 134 429
7. 3 313 452
8. 5 163 202
9. 5 621 085
10. 3 165 243

Think. Answers will vary.

**Page 47**

Questions to be answered using column subtraction.

1. 308 152
2. 364 733
3. 169 314
4. 371 893
5. 145 868
6. 537 887
7. 3 214 642
8. 3 573 524
9. 7 166 685
10. 1 693 393

Think. 90 013, 90 012; answers are only one different.

**Page 48**

1. 74 510
2. 10 011
3. 98 672 g
4. 16 996
5. £12 213 459
6. 75 451

**Page 49**

1. 11 203
2. 37 615 600 km
3. 187 435 kg
4. £25 041 176
5. £9 134 843
6. 5.81 ml

## Page 50

1. 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98
2. 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
3. 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99
4. 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96...
5. 12, 24, 36, 48, 60, 72, 84, 96...
6. 14, 28, 42, 56, 70, 84, 98...
7. 12, 24, 36, 48, 60, 72, 84, 96...
8. 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96...
9. 20, 40, 60, 80, 100...
10. 6
11. 10
12. 12
13. 15
14. 4
15. 12
16. 12
17. 24
18. 24
19. 40
20. 30
21. 150

Think. Answers will vary, for example, 6 is a common multiple of 1, 2 and 3.

## Page 51

1. 14, 28, 42...
2. 12, 24, 36...
3. 15, 30, 45...
4. 30, 60, 90...
5. 20, 40, 60...
6. 15, 30, 45...
7. 100, 200, 300...
8. 36, 72, 108...
9. 40, 80, 120...
10. 30, 60, 90...
11. 60, 120, 180...
12. 150, 300, 450...

Think. There are an infinite number of common multiples.

## Page 52

1. 

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| 56 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 66 |
| 55 | 30 | 13 | 14 | 15 | 16 | 17 | 38 | 67 |
| 54 | 29 | 12 | 3  | 4  | 5  | 18 | 39 | 68 |
| 53 | 28 | 11 | 2  | 1  | 6  | 19 | 40 | 69 |
| 52 | 27 | 10 | 9  | 8  | 7  | 20 | 41 | 70 |
| 51 | 26 | 25 | 24 | 23 | 22 | 21 | 42 | 71 |
| 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 72 |
|    | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 |
2. 37
3. 29
4. 31
5. 53
6. 37
7. 71 or 73
8. Answers may vary  
Think. Answers will vary, for example, 13 and 31.

## Page 53

1. false
2. true
3. true
4. false
5. false
6. true
7. true
8. false
9. true
10. true
11. true
12. true
13. 17 and 73, 19 and 71, 23 and 67, 29 and 61, 31 and 59, 37 and 53, 43 and 47

Think. Answers will vary.

## Page 54

1.  $1111 \div 5 = 222 \text{ r } 1$
2.  $2222 \div 5 = 444 \text{ r } 2$
3.  $3333 \div 5 = 666 \text{ r } 3$
4.  $4444 \div 5 = 888 \text{ r } 4$
5.  $5555 \div 5 = 1111$
6.  $6666 \div 5 = 1333 \text{ r } 1$
7.  $7777 \div 5 = 1555 \text{ r } 2$
8.  $8888 \div 5 = 1777 \text{ r } 3$
9.  $9999 \div 5 = 1999 \text{ r } 4$
10. 185 r 1, 370 r 2, 555 r 3, 740 r 4, 925 r 5, 1111, 1296 r 1, 1481 r 2, 1666 r 3
11. It increases by one each time.

12. 158 r 5, 317 r 3, 476 r 1, 634 r 6, 793 r 4, 952 r 2, 1111, 1269 r 5, 1428 r 3
13. 370 r 1, 740 r 2, 1111, 1481 r 1, 1851 r 2, 2222, 2592 r 1, 2962 r 2, 3333: remainder follows the pattern 1, 2, 0, 1, 2, 0...
14. 138 r 7, 277 r 6, 416 r 5, 555 r 4, 694 r 3, 833 r 2, 972 r 1, 1111, 1249 r 7: remainder decreases by one each time (up to 9999, when it goes back up to 7).
15. 123 r 4, 246 r 8, 370 r 3, 493 r 7, 617 r 2, 740 r 6, 864 r 1, 987 r 5, 1111

## Page 55

All questions to be answered using long division.

1.  $52 \frac{1}{12}$
2.  $63 \frac{2}{12}$  or  $63 \frac{1}{6}$
3.  $23 \frac{3}{25}$
4.  $32 \frac{2}{13}$
5.  $42 \frac{11}{13}$
6.  $31 \frac{14}{25}$
7.  $52 \frac{2}{13}$
8.  $35 \frac{4}{25}$
9.  $12 \frac{1}{25}$

Think. Answers will vary.

## Page 56

All questions to be answered using long division.

Think. Question 11 has the biggest answer.

1.  $43 \frac{7}{13}$
2.  $36 \frac{3}{25}$
3.  $35 \frac{7}{14}$  or  $35 \frac{1}{2}$
4.  $43 \frac{9}{21}$  or  $43 \frac{3}{7}$
5.  $57 \frac{8}{13}$
6.  $33 \frac{11}{14}$
7.  $37 \frac{12}{21}$  or  $37 \frac{4}{7}$
8.  $35 \frac{21}{25}$
9. 61
10.  $10 \frac{19}{25}$
11.  $63 \frac{13}{14}$
12.  $18 \frac{19}{21}$

Think. Answers will vary.

### Page 57

All questions to be answered using long division.

1.  $47\frac{2}{16}$  or  $47\frac{1}{8}$
2.  $8\frac{11}{32}$
3.  $38\frac{3}{25}$
4.  $33\frac{6}{24}$  or  $33\frac{1}{4}$
5.  $24\frac{15}{32}$
6.  $19\frac{7}{25}$
7.  $33\frac{14}{24}$  or  $33\frac{7}{12}$
8.  $46\frac{3}{16}$
9.  $27\frac{20}{25}$  or  $27\frac{4}{5}$
10.  $55\frac{8}{16}$  or  $55\frac{1}{2}$
11.  $32\frac{17}{24}$
12.  $24\frac{26}{32}$  or  $24\frac{13}{16}$

Think. 31 is half 62; answers will vary:  $1344 \div 16 = 84$ ,  $1344 \div 32 = 42$

### Page 58

All questions to be answered using long division.

1. 13
2. 52
3.  $24\frac{1}{14}$
4.  $32\frac{2}{14}$  or  $32\frac{1}{7}$
5.  $56\frac{5}{14}$
6.  $71\frac{5}{14}$
7. 13
8.  $25\frac{1}{25}$
9.  $34\frac{10}{25}$  or  $34\frac{2}{5}$
10.  $31\frac{2}{25}$
11.  $29\frac{20}{25}$  or  $29\frac{4}{5}$
12.  $17\frac{8}{25}$

Think. 16 is half 32; answers will vary.

### Page 59

All questions to be answered using long division.

1. 133
2.  $248\frac{8}{15}$
3. 216
4.  $198\frac{6}{23}$
5.  $194\frac{19}{24}$
6.  $325\frac{14}{23}$
7.  $623\frac{1}{16}$
8.  $421\frac{2}{3}$
9.  $280\frac{1}{4}$
10.  $234\frac{4}{7}$
11.  $578\frac{1}{3}$
12.  $324\frac{1}{24}$
13. 341
14.  $416\frac{1}{7}$
15.  $358\frac{11}{16}$

Think.  $5616 \div 24 = 234$ ,  $5616 \div 12 = 468$  so

$5832 \div 24 =$  half of  $5832 \div 12 =$  half of  $486 = 243$

### Page 60

1. £39.78
2. £91.98
3. £51.71
4. £4.71
5. £125.28
6. £18.41
7. £38.26

### Page 61

1. £107.35
2. £87.72
3. £137.07
4. £64.68
5. £67.46
6. £97.18
7. £26.77

Think. A = 9, B = 7 and C = 8

### Page 62

1.  $38.43 - 27.82 = 10.61$
2.  $26.55 - 18.73 = 7.82$
3.  $35.27 - 26.13 = 9.14$
4.  $43.49 - 37.77 = 5.72$
5.  $59.58 - 46.05 = 13.53$
6.  $63.32 - 54.88 = 8.44$
7.  $65.72 - 48.69 = 17.03$
8.  $72.08 - 66.45 = 5.63$
9.  $84.35 - 71.63 = 12.72$
10.  $50.94 - 38.17 = 12.77$
11.  $75.49 - 69.36 = 6.13$
12.  $94.01 - 79.26 = 14.75$

Think. Answers will vary.

### Page 63

Questions 5–8 to be answered using column addition.

1.  $16.8 + 4.12 = 20.92$
2.  $30.54 + 7.41 = 37.95$
3.  $24.63 - 8.2 = 16.43$
4.  $36.58 - 4.35 = 32.23$
5. 63.97
6. 96.46
7. 51.65
8. 63.19
9.  $7.42 - 3.86 = 3.56$
10.  $11.33 - 4.79 = 6.54$
11.  $12.67 - 9.73 = 2.94$

12.  $24.52 - 18.69 = 5.83$

Think. 3.62; the jump of 2.2 should be 0.22.

### Page 64

1.  $3.14 + 8.72 = 11.86$
2.  $14.86 + 35.48 + 12.57 = 62.91$
3.  $23.18 - 15.04 = 8.14$
4.  $14.7 - 3.2 = 11.5$
5.  $62.63 - 57.94 = 4.69$
6.  $54.36 + 15.69 = 70.05$
7.  $12.3 + 4.02 = 16.32$
8.  $37.46 - 14.01 = 23.45$
9.  $36.83 + 8.78 = 45.61$
10.  $47.48 - 10.16 = 37.32$
11.  $53.24 + 28.32 + 9.45 = 91.01$
12.  $47.02 - 39.98 = 7.04$

Think. 7.62; the jump of 2.2 should be 0.22.

### Page 65

1. Answers will vary.
2.  $85.73 - 78.68 = 7.05$
3.  $14.02 - 7.4 = 6.62$
4.  $85.03 - 79.99 = 5.04$
5.  $34.83 - 29.61 = 5.22$
6. false
7. false
8. true
9. Mostly true, but not if the number is already palindromic as the answer will be zero, for example,  $16.61 - 16.61 = 0$ .

### Page 66

1. 18.26 m
2. 4.24 l
3. 26.9
4. 0.61 seconds
5. 30.04 kg
6. £4.79
7. 106.22 m

### Page 67

1. 59.45 miles
2. £38
3. 5.2 ml
4. 48.42 seconds
5. 1.54 kg
6. £70.29

Think. A range of answers are possible, for example,  $1.364 + 9.523 = 10.887$ .

### Page 68

1. Reds 6
2. Yellows 5
3. Maroons 4
4. Greys 7
5. Whites 8
6. Greens 5
7. Stripes 7
8. Whites, Stripes and Greys, Red, Yellows and Greens, Maroons
9. Reds 3, Yellows 6, Maroons 4, Greys 2, Whites 5, Greens 4, Stripes 3

Think. Any set of 10 scores with a total of 70.

### Page 69

1.  $6.5^{\circ}\text{C}$
2.  $6^{\circ}\text{C}$
3.  $19^{\circ}\text{C}$
4.  $10^{\circ}\text{C}$
5.  $6.5^{\circ}\text{C}$
6.  $22.5^{\circ}\text{C}$
7.  $34.5^{\circ}\text{C}$
8.  $27.5^{\circ}\text{C}$

### Page 70

1. £4
2. £6
3. £8
4. £16
5. £9
6. £5
7. £11
8. £13
9. 2 months
10. 6 months
11. 1 month
12.  $2\frac{1}{2}$  months
13.  $6\frac{1}{2}$  months
14. Red points: Sunil had saved £1 after  $\frac{1}{2}$  month, £7 after  $3\frac{1}{2}$  months and £15 after  $7\frac{1}{2}$  months.

Think. £4.50 after 9 weeks. £7.50 after 15 weeks.

### Page 71

1. 12.5 km
2. 20 km
3. 31 km
4. about 09:40
5. 16:00
6. about 17:40

7. 12:00 for 2 hours
  8. about 3 h 20 m
  9. 14:00 and 15:00
  10. 21:00 and 22:00
- Think. Answers will vary.

### Page 72

Answers may vary slightly from these:

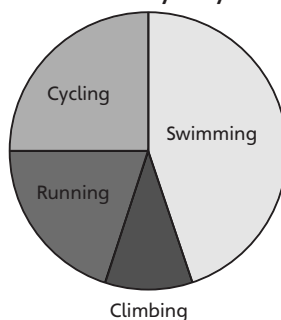
1. 17.5 pints
2. 5.2 pints
3. 21 pints
4. 32.5 pints
5. 26.5 pints
6. 44 pints
7. 1.6 l
8. 4.5 l
9. 5.6 l
10. 11.2 l
11. 6.8 l
12. 17 l

Think. 0.57 l

### Page 73

1. 6
2. 8
3. 3
4. 8
5. 4
6. 6
7. 6
8. 9
- 9.

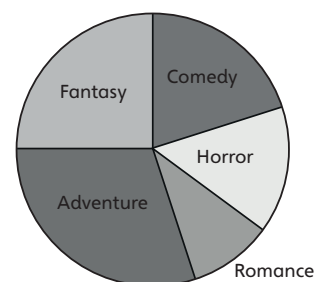
Title may vary



Answers will vary.

### Page 74

1. 6
2. 15
3. 9
4. 32
5. 15
6. 8
7. 3
8. False, although the proportion of the pie charts is the same, each graph represents a different number of people.
9. True, as 20% of 60 is equal to 15% of 80.
10. Least favourite genre of film



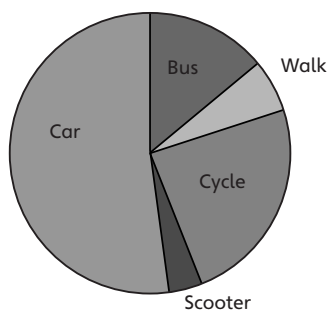
### Page 75

1.  $\frac{1}{12}$
2.  $\frac{2}{12}$  or  $\frac{1}{6}$
3.  $\frac{1}{12}$
4.  $\frac{4}{12}$  or  $\frac{1}{3}$
5.  $\frac{3}{12}$  or  $\frac{1}{4}$
6.  $\frac{5}{12}$
7.  $\frac{9}{12}$  or  $\frac{3}{4}$
8.  $\frac{5}{12}$
9. 20
10. 40
11. 30
12. 30
13. 30
14. 0

Think. Answers will vary; pink 12, blue 2, yellow 2.

## Page 76

### I. How children get to school



|         | No. of chn<br>% of total | No. of chn<br>% of total |
|---------|--------------------------|--------------------------|
| Bus     | 7                        | 14%                      |
| Walk    | 3                        | 6%                       |
| Cycle   | 12                       | 24%                      |
| Scooter | 2                        | 4%                       |
| Car     | 26                       | 52%                      |

- 3
- 7
- 15
- 3
- 17

## Page 77

- (-3, 0) (0, 4) (-3, 6) (-6, 4)  
(2, 3) (6, 4) (6, 6) (2, 5)  
(-2, -4) (-4, -4) (-6, -8)  
(0, -8)  
(2, 0) (2, -8) (8, -8) (8, 0)
- (-5, 0) (-2, 4) (-5, 6) (-8, 4)  
(0, 3) (4, 4) (4, 6) (0, 5)  
(-4, -4) (-6, -4) (-8, -8)  
(-2, -8)  
(0, 0), (0, -8) (6, -8) (6, 0)
- (-5, 2) (-2, 6) (-5, 8) (-8, 6)  
(0, 5) (4, 6) (4, 8) (0, 7)  
(-4, -2) (-6, -2) (-8, -6)  
(-2, -6)  
(0, 2) (0, -6) (6, -6) (6, 2)
- True
- False
- False, unless the rectangle is shown in a horizontal or vertical orientation.
- False. It is the y-coordinate that changes.

## Page 78

- Shapes correctly drawn on coordinate grid.
- (2, 1) (4, 3) (2, 5) (0, 3)  
(-1, 2) (-2, 4) (-4, 4) (-4, 2)  
(-1, -1) (-4, -1) (-1, -6)  
(1, -1), (0, -4) (5, -4) (6, -1)

- Answers will vary.
  - (7, 8)
  - 1 or 6
  - $a = 1, b = -9$
  - $m = 7$
- Think. (0, -1) (0, -6) (3, -6)

## Page 79

- Shape a: (-2, 1) (-2, 9) (-3, 9)  
(-3, 3) (-5, 1)  
Shape b: (1, 6) (3, 6) (1, 9)  
Shape c: (4, 3) (8, 3) (8, 8)  
(6, 8) (6, 5) (4, 5)  
Shape d: (1, 0) (2, 2) (6, 0) (7, 2)  
Shape e: (0, -1) (1, -2) (1, -5)  
(4, -5) (4, -2)  
Shape f: (-2, -1) (-4, -1)  
(-4, -5) (-1, -5) (-1, -4)
- Reflected shapes drawn on grid.
- The positive numbers have become negative and the negative numbers have become positive.

Think. Answers will vary.

## Page 80

- $a = 120^\circ, b = 60^\circ$
  - $a = 150^\circ, b = 150^\circ$
  - $a = 85^\circ, b = 95^\circ$
  - $a = 135^\circ, b = 45^\circ, c = 135^\circ$
  - $a = 80^\circ$
  - $a = 45^\circ$
  - $a = 100^\circ$
  - $a = 70^\circ$
- Think.  $25^\circ$  and  $35^\circ$

## Page 81

- $a = 75^\circ, b = 105^\circ, c = 75^\circ$
- $a = 130^\circ, b = 50^\circ, c = 130^\circ$
- $a = 95^\circ, b = 55^\circ, c = 30^\circ, d = 95^\circ$
- $a = 50^\circ, b = 40^\circ, c = 90^\circ, d = 50^\circ$
- $a = 25^\circ$
- $a = 30^\circ$
- $a = 90^\circ$
- $a = 70^\circ$
- Triangle 1:  $a = 70^\circ, b = 110^\circ$  The missing angle (b) is the sum of the two given angles in the triangle.  
Triangle 2:  $a = 30^\circ, b = 150^\circ$  The missing angle (b) is the sum of the two given angles in the triangle.  
Own Triangle: answers will vary.

## Page 82

- $a = 83^\circ, b = 83^\circ, c = 97^\circ$
- $a = 53^\circ, b = 127^\circ, c = 53^\circ$
- $a = 113^\circ, b = 41^\circ, c = 26^\circ, d = 113^\circ$
- $a = 55^\circ, b = 81^\circ, c = 44^\circ, d = 55^\circ$
- $a = 30^\circ$
- $a = 15^\circ$
- $a = 97^\circ$
- $a = 43^\circ$
- Triangle 1:  $a = 45^\circ, b = 135^\circ$  The exterior angle (b) is the sum of the two given angles in the triangle.  
Triangle 2:  $a = 34^\circ, b = 146^\circ$  The exterior angle (b) is the sum of the two given angles in the triangle.  
Own triangle: answers will vary.

## Page 83

- $£5637 \times 3 = £16\ 911$
  - $£4 \times 7242 = £28\ 968$
  - $£2436 \times 7 = £17\ 052$
  - $8365 \times 8p = 66\ 920p$  or  $£669.20$
  - $£18\ 636$
  - $22\ 590p$  or  $£225.90$
  - $£57.42 \times 3 = £172.26$
  - $8 \times £63.34 = £506.72$
  - $£83.77 \times 6 = £502.62$
  - $£48.19 \times 7 = £337.33$
  - $£32.87$
  - Five T-shirts cost  $£96.85$ , which is more  $£14.77$  than three jackets that cost  $£82.08$ .
- Think. 2 and 7

## Page 84

- Week 1  $£632.70$ , Week 2  $£645.37$
- Week 1  $£126.54$ , Week 2  $£129.07$
- Week 2 by  $£2.53$

## Page 85

- 784.55 m
  - 424.58 m
  - 507.65 m
  - Petronas Towers
  - Taipai 101 Tower
  - Burj Khalifa
  - $23 \times 26.74 \text{ m} = 614.02 \text{ m}$
  - $26 \times 23.65 \text{ m} = 614.9 \text{ m}$
  - $34 \times 26.54 \text{ m} = 902.36 \text{ m}$
  - $43 \times 53.31 \text{ m} = 2292.33 \text{ m}$
- Think.  $23.45 \times 1$

### Page 86

- 341.18 m
- 1373.9 m
- 1176.5 m
- 1267.8 m
- £284.51
- £260
- £605.88
- £356.44

Think. 1 209 600 mm or 1209.6 m (or 1.2096 km)

### Page 87

- $57.38 \text{ m} \times 24 = 1377.12 \text{ m}$
- $17.43 \text{ m} \times 28 = 488.04 \text{ m}$
- $46.37 \text{ m} \times 26 = 1205.62 \text{ m}$
- $£75.22 \times 32 = £2407.04$
- $£69.37 \times 34 = £2358.58$
- $£35.27 \times 29 = £1022.83$
- $11.13 \times 38 = 422.94$
- $38.42 \times 39 = 1498.38$
- $78.47 \times 36 = 2824.92$
- $59.47 \times 33 = 1962.51$
- $39.53 \times 37 = 1462.61$
- $55.55 \times 28 = 1555.4$
- $37.73 \times 37 = 1396.01$
- $89.47 \times 45 = 4026.15$

Think. It is true, provided the number it is multiplied by is a whole number.

### Page 88

- $406 = 29, 16 \frac{22}{24}$  or  $16 \frac{11}{12}$
  - $336 = 24, 14$
  - $168 = 12, 7$
  - $392 = 28, 16 \frac{8}{24}$  or  $16 \frac{1}{3}$
  - $280 = 20, 11 \frac{16}{24}$  or  $11 \frac{2}{3}$
- 14
- 15
- 21
- 23
- 25
- $41 \frac{2}{14}$  or  $41 \frac{1}{7}$

Think. Answers will vary, for example,  $624 \div 26 = 24$ .

### Page 89

- $272 \frac{8}{17}$  b)  $421 \frac{1}{17}$  c)  $160 \frac{9}{17}$
  - $202 \frac{11}{17}$  e)  $528$  f)  $149 \frac{1}{7}$
- $201 \frac{9}{23}$  b)  $311 \frac{5}{23}$  c)  $118 \frac{15}{23}$
  - $149 \frac{18}{23}$  e)  $390 \frac{6}{23}$  f)  $110 \frac{4}{23}$
- $165 \frac{12}{28}$  or  $165 \frac{3}{7}$
  - $255 \frac{18}{28}$  or  $255 \frac{9}{14}$
  - $97 \frac{13}{28}$  d)  $123 \frac{1}{28}$
  - $320 \frac{16}{28}$  or  $320 \frac{4}{7}$
  - $90 \frac{14}{28}$  or  $90 \frac{1}{2}$

Think. Answers will vary, for example,  $9375 \div 25 = 375$ .

### Page 90

- $4637 \div 27 = 171 \frac{20}{27}$
- $7522 \div 31 = 242 \frac{20}{31}$
- $1748 \div 23 = 76$
- $5738 \div 38 = 151$
- $6937 \div 32 = 216 \frac{25}{32}$
- $1743 \div 24 = 72 \frac{5}{8}$
- $3842 \div 26 = 147 \frac{10}{13}$
- $7847 \div 36 = 217 \frac{35}{36}$
- $5739 \div 37 = 155 \frac{4}{37}$
- $3527 \div 29 = 121 \frac{18}{29}$
- $17947 \div 34 = 233 \frac{25}{34}$
- $1113 \div 28 = 39 \frac{3}{4}$
- $6213 \div 29 = 214 \frac{1}{2}$
- $5708 \div 19 = 300 \frac{8}{19}$
- 151 runs
- $169 \frac{6}{27}$  each. Or 175 for Olivia and 169 for the other children.

Think. 90 years

### Page 91

- $5392 \div 24 = 224 \frac{2}{3}$
- $6948 \div 23 = 302 \frac{2}{23}$
- $1634 \div 26 = 62 \frac{11}{13}$
- $2153 \div 27 = 79 \frac{20}{27}$
- $4616 \div 29 = 159 \frac{5}{29}$
- $6.5738 \div 28 = 204 \frac{13}{14}$
- 283 pounds
- 241 crates
- 194 matches
- 512 stone

### Page 92

- $\times 2 + 1$ , 401; answers will vary.
  - $\times 10 - 1$ , 29; answers will vary.
  - $\times 3 + 2$ , 20; answers will vary.
- Think. Answers will vary.

### Page 93

- the third function machine
  - the second function machine
  - the first function machine
  - 4, 20, 8
  - 20, 10, 100, 25
  - 50, 40, 20, 10
- Think. No.

### Page 94

- Multiply by 10 and add 2,  $10n + 2$ ; 100, 50, 500, 60, 2, 20
  - Multiply by 7 and subtract 3,  $7n - 3$ ; 5, 35, 56, 7, 49, 63
  - Multiply by 11 and subtract 12,  $11n - 12$ ; 110, 20, 77, 99, 6, 66
  - Answers will vary.
- Think. Answers will vary.

### Page 95

- 50
- 49
- 93
- 250
- 91
- 201
- $2\frac{1}{2}$
- 5.6
- 64
- 5.2
- 103
- 3.3
- 6
- 150

Think. Answers will vary, for example, 'For the first sequence you would multiply 100 by 5 because the sequence goes up in 5s', and so on.

### Page 96

- 61, 71; 101. Multiply by 10 and add 1.
- 32, 37; 52. Multiply by 5 and add 2.
- 59, 69; 99. Multiply by 10 and subtract 1.
- 63, 73; 103. Multiply by 10 and add 3.
- $2n + 3$ ; 5, 7, 9, 11, 13, 15, 17, 19, 21, 23
- $4n + 1$ ; 5, 9, 13, 17, 21, 25, 29, 33, 37, 41
- $5n - 2$ ; 3, 8, 13, 18, 23, 28, 33, 38, 43, 48

### Page 97

1. 157, 317
2. 126, 369
3.  $2n + 13$ ; 15, 17, 19, 21, 23, 25, 27, 29, 31, 33
4.  $3n + 9$ ; 12, 15, 18, 21, 24, 27, 30, 33, 36, 39
5.  $6n - 6$ ; 0, 6, 12, 18, 24, 30, 36, 42, 48, 54
6. 5, 8, 11, 14, 17, 20... 32
7. 3, 8, 13, 18, 23, 28... 48

### Page 98

1.  $3:6 = 1:2$
2.  $5:5 = 1:1$
3.  $3:9 = 1:3$
4.  $5:3$
5.  $4:5$
6. 10
7. 25
8. 500
9. 250 ml

Think. Answers will vary.

### Page 99

1.  $10:16 = 5:8$
2.  $12:4 = 3:1$
3.  $6:20 = 3:10$
4.  $12:10 = 6:5$
5.  $4:10 = 2:5$
6. 9 are milk and 12 are dark.
7. 12
8. 7:5

Think. Answers will vary.

### Page 100

1. £12.96
2. 45.79 miles
3. 2.31 kg
4. Yes. The cost is £2444 greater.
5. 49 672 km altogether.  
He needs to cycle another 328 km more.
6. £48
7. 7.32 ml
8. £16 253 840

### Page 101

Questions 12, 15, 28, 31 to be done using column addition or subtraction.

1.  $1634 \div 26 = 62 \frac{11}{13}$
2.  $£57.42 \times 3 = £172.26$
3.  $14.86 + 35.48 + 12.57 = 62.91$
4.  $23.18 - 15.04 = 8.14$
5.  $12 \times £458 = £5496$
6.  $14.7 - 3.2 = 11.5$
7.  $43.49 - 37.77 = 5.72$
8.  $32\ 846 - 1999 = 30\ 847$
9.  $27.6 - 4.99 = 22.61$
10. 35% of £60 = £21
11.  $4675 \div 24 = 194 \frac{19}{24}$
12. 10.82
13.  $5739 \div 16 = 358 \frac{11}{16}$
14.  $(14 - 7) \times 7 + 4 = 53$
15. 371 893
16.  $3627 \times 13 = 47\ 151$
17.  $5738 \div 28 = 204 \frac{13}{14}$
18.  $£83.77 \times 6 = £502.62$
19.  $37.46 - 14.01 = 23.45$
20.  $36.83 + 8.78 = 45.61$
21.  $£367 \times 9 = £3303$
22.  $47.48 - 10.16 = 37.32$
23.  $50.94 - 38.17 = 12.77$
24.  $312 - 257 = 55$
25.  $92 - 67 = 25$
26. 95% of £12 = £11.40
27.  $3284 \div 18 = 182 \frac{4}{9}$
28. 8.96
29.  $497 \div 14 = 35 \frac{1}{2}$
30.  $54.72 - 8.99 = 45.73$
31. 7 166 685
32.  $5624 \times 26 = 146\ 224$

### Page 102

1. Rory
2. Tom
3.  $R + S = 24$ ;  $T + S = 19$ ;  $T + R = 21$
4. 5
5. 2
6. Rory (2) Sam (3) Tom
7. Rory is 13; Sam is 11; Tom is 8.
8.  $13 + 11 = 24$ ;  $8 + 11 = 19$ ;  
 $8 + 13 = 21$
9. 32

### Page 103

10.  $A + B = 80$ ;  $C + B = 100$ ;  $C + D = 75$ ;  $B + D = 95$
11. Clio 20 y older than Amy
12. Ben 25 y older than Dan
13. Ben 20 y older than Clio
14. Ben (20) Clio (5) Dan (15) Amy
15. Amy 20; Ben 60; Clio 40; Dan 35
16.  $20 + 60 = 80$ ;  $40 + 60 = 100$ ;  
 $40 + 35 = 75$ ;  $60 + 35 = 95$
17. 155
18. Answers will vary.