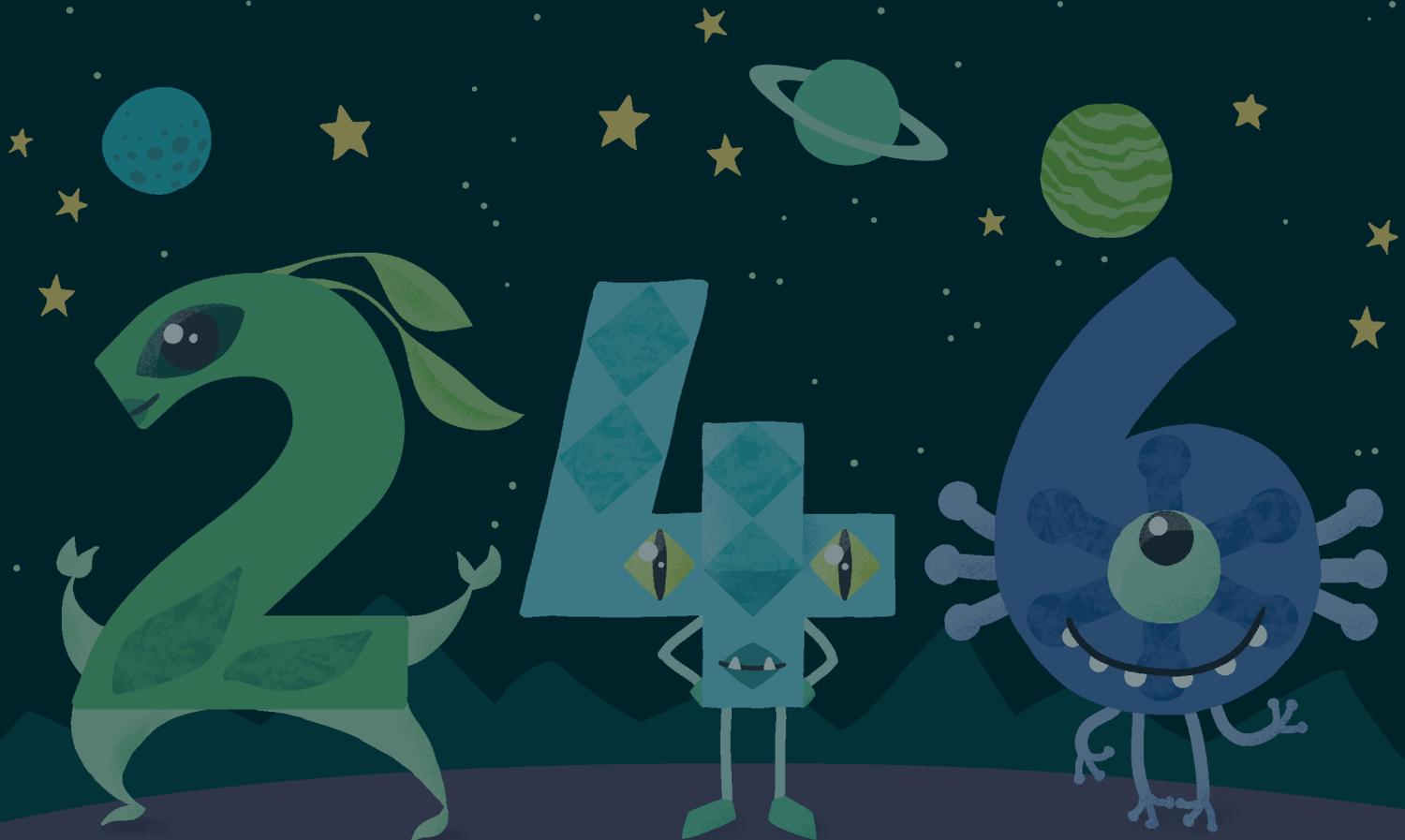**1B**

ZETA PRIMARY

MATHS & NUMERACY

CfE First Level TEXTBOOK

ANSWERS

Chapter 1

Exercise 1.1

1.
(a) twenty–six   (b) fourty–two   (c) eighteen
(d) thirty–three   (e) seventy–one   (f) sixteen
(g) fifty–six   (h) eighty–four   (i) thirty–two

2.
(a) twelve   (b) thirteen   (c) nineteen
(d) eighteen   (e) seventeen   (f) fifteen
(g) eleven   (h) fourteen   (i) sixteen

3.
(a) one hundred   (b) two hundred   (c) three hundred
(d) four hundred   (e) five hundred   (f) six hundred
(g) seven hundred   (h) eight hundred   (i) nine hundred

4.
(a) one hundred and fifty   (b) one hundred and thirty
(c) two hundred and eighty   (d) three hundred and fifty
(e) four hundred and seventy   (f) five hundred and fifty
(g) six hundred and thirty   (h) seven hundred and twenty
(i) eight hundred and ninety

Exercise 1.2

1.
(a) 26   (b) 36   (c) 48   (d) 52   (e) 67
(f) 71   (g) 83   (h) 91   (i) 50

2.
(a) 300   (b) 600   (c) 700   (d) 500
(e) 200   (f) 800   (g) 400   (h) 900
(i) 100

3.
(a) 150   (b) 620   (c) 740   (d) 530
(e) 265   (f) 874   (g) 482   (h) 953

Exercise 1.3A

1.
(a) 221, 222, 223   (b) 453, 454, 455   (c) 162, 163, 164
(d) 733, 734, 735   (e) 813, 814, 815   (f) 393, 394, 395
(g) 610, 611, 612   (h) 317, 318, 319   (i) 601, 602, 603

2.
(a) 113, 114   (b) 192, 193   (c) 303, 304
(d) 661, 662   (e) 562, 563   (f) 440, 441
(g) 711, 712   (h) 836, 837   (i) 667, 668
(j) 810, 811   (k) 127, 128   (l) 999, 1000

3.
(a) 102   (b) 292   (c) 309
(d) 495   (e) 772   (f) 622
(g) 710   (h) 441   (i) 690
(j) 882   (k) 607   (l) 901

Exercise 1.3B

1. 16, 18, 20   2. 56, 58, 60   3. 92, 94, 96
4. 40, 42, 44   5. 24, 26, 28   6. 80, 82, 84
7. 32, 34, 36   8. 70, 72, 74   9. 64, 66, 68

Exercise 1.3C

1. 30, 35, 40   2. 65, 70, 75   3. 95, 100, 105
4. 45, 50, 55   5. 35, 40, 45   6. 85, 90, 95
7. 40, 45, 50   8. 75, 80, 85   9. 65, 70, 75

Exercise 1.3D

1. 60, 70, 80   2. 85, 95, 105   3. 53, 63, 73
4. 50, 60, 70   5. 84, 94, 104   6. 100, 110, 120
7. 140, 150, 160   8. 151, 161, 171   9. 180, 190, 200

Exercise 1.4A

1.
(a) 108, 107, 106   (b) 167, 166, 165   (c) 387, 386, 385
(d) 542, 541, 540   (e) 602, 601, 600   (f) 618, 617, 616
(g) 787, 786, 785   (h) 230, 229, 228   (i) 552, 551, 550
(j) 898, 897, 896   (k) 876, 875, 874   (l) 699, 698, 697

2.
(a) 98, 97   (b) 107, 106   (c) 304, 303
(d) 489, 488   (e) 564, 563   (f) 886, 885
(g) 232, 231   (h) 302, 301   (i) 598, 597
(j) 773, 772   (k) 203, 202   (l) 929, 928

3.
(a) 140   (b) 208   (c) 567
(d) 989   (e) 372   (f) 200
(g) 678   (h) 463   (i) 808
(j) 767   (k) 105   (l) 955

Exercise 1.4B

1. 8, 6, 4   2. 44, 42, 40   3. 80, 78, 76
4. 28, 26, 24   5. 12, 10, 8   6. 68, 66, 64
7. 20, 18, 16   8. 58, 56, 54   9. 52, 50, 48

Exercise 1.4C

1. 20, 15, 10   2. 35, 30, 25   3. 65, 60, 55
4. 15, 10, 5   5. 30, 25, 20   6. 55, 50, 45
7. 80, 75, 70   8. 45, 40, 35   9. 85, 80, 75

Exercise 1.4D

1. 50, 40, 30   2. 70, 60, 50   3. 40, 30, 20
4. 54, 44, 34   5. 61, 51, 41   6. 37, 27, 17
7. 100, 90, 80   8. 150, 140, 130   9. 170, 160, 150

Exercise 1.5

1.
(a) 108, 233, 340, 663   (b) 105, 269, 670, 988
(c) 121, 305, 454, 994   (d) 259, 313, 409, 543
(e) 374, 491, 525, 646   (f) 102, 350, 403, 663
(g) 467, 510, 645, 717   (h) 104, 460, 795, 861

(i) 349, 396, 405, 566   (j) 165, 203, 400, 465
(k) 300, 500, 606, 945   (l) 514, 700, 859, 999
2.
(a) 600, 563, 276, 150   (b) 299, 240, 165, 110
(c) 789, 444, 303, 298   (d) 534, 480, 363, 209
(e) 832, 755, 504, 146   (d) 672, 655, 277, 173
(g) 707, 644, 455, 110   (h) 906, 800, 705, 160
(i) 939, 545, 302, 151   (j) 700, 600, 400, 100
(k) 895, 776, 563, 332   (l) 964, 504, 389, 299

Exercise 1.6A
1. 72   2. 47   3. 213   4. 136   5. 250
6. 108   7. 426   8. 580   9. 642   10. 399

Exercise 1.6B
1.
(a) 200 + 60 + 3 (b) 100 + 10 + 5 (c) 400 + 50 + 6
(d) 800 + 70 + 2 (e) 300 + 90 + 3 (f) 600 + 50 + 4
(g) 400 + 3   (h) 900 + 50   (i) 500 + 30 + 7
(j) 600 + 20 + 4 (k) 100 + 90 + 9 (l) 900 + 90 + 3

2.

Number	Hundreds	Tens	Ones
246	2	4	6
124	1	2	4
678	6	7	8
390	3	9	0
543	5	4	3
768	7	6	8
999	9	9	9
214	2	1	4
339	3	3	9
732	7	3	2

Exercise 1.7
1.1
(a) three hundred   (b) seven hundred
(c) one hundred   (d) five hundred and sixty
(e) eight hundred and forty-three
(f) three hundred and twenty-six
1.2
(a) 100   (b) 600   (c) 746   (d) 531
1.3A
(a) 121, 122, 123   (b) 452, 453, 454 (c) 160, 161, 162
1.3B
(a) 26, 28, 30   (b) 54, 56, 58   (c) 60, 65, 70
(d) 40, 50, 60   (e) 68, 78, 88   (f) 183, 193, 203

1.4A
(a) 196, 195, 194   (b) 548, 547, 546 (c) 186, 185, 184
1.4B
(a) 22, 20, 18   (b) 62, 60, 58   (c) 80, 75, 70
(d) 60, 50, 40   (e) 48, 38, 28   (f) 53, 43, 33
1.5A
(a) 112, 333, 663, 840   (b) 189, 269, 870, 963
(c) 194, 395, 454, 921
1.5B
(a) 868, 675, 342, 199   (b) 987, 765, 463, 180
(c) 937, 890, 544, 154
1.6A
(a) 384   (b) 545
1.6B
(a) 800 + 90 + 3   (b) 500 + 40 + 5 (c) 200 + 50 + 6

Chapter 2
Exercise 2.1
1. 40   2. 60   3. 90   4. 90   5. 10
6. 100   7. 80   8. 30   9. 60   10. 20
11. 50   12. 30   13. 60   14. 70   15. 40

Exercise 2.2
1. 420   2. 510   3. 820   4. 940   5. 140
6. 990   7. 570   8. 300   9. 520   10. 1000
11. 390 12. 280 13. 620 14. 490 15. 250

Exercise 2.3
1. 0   2. 100   3. 100   4. 100   5. 0
6. 0   7. 0   8. 0   9. 100   10. 100
11. 0   12. 100 13. 0   14. 100 15. 100

Exercise 2.4
1. 200   2. 500   3. 800   4. 400   5. 500
6. 700   7. 200   8. 300   9. 100   10. 1000
11. 700 12. 900 13. 200 14. 100 15. 800

Exercise 2.5
2.1
(a) 10   (b) 30   (c) 60
(d) 100   (e) 20   (f) 70
2.2
(a) 670   (b) 570   (c) 900
(d) 440   (e) 250   (f) 320
2.3
(a) 0   (b) 100   (c) 100
(d) 100   (e) 100   (f) 0
2.4
(a) 100   (b) 700   (c) 900
(d) 500   (e) 600   (f) 200

Chapter 3

Exercise 3.1

1.
(a) 10 + 5 = 15   **(b)** 10 + 4 = 14   **(c)** 10 + 9 = 19
(d) 8 + 5 = 13   **(e)** 6 + 5 = 11   **(f)** 9 + 7 = 16
(g) 7 + 7 = 14   **(h)** 5 + 7 = 12   **(i)** 8 + 7 = 15
(j) 16 + 4 = 20   **(k)** 12 + 5 = 17   **(l)** 13 + 5 = 18
(m) 15 + 4 = 19   **(n)** 13 + 3 = 16   **(o)** 18 + 2 = 20

2.
(a) 12 + 6 = 18   **(b)** 8 + 10 = 18   **(c)** 14 + 6 = 20
(d) 16 + 4 = 20   **(e)** 13 + 1 = 14   **(f)** 19 + 0 = 19
(g) 17 + 1 = 18   **(h)** 13 + 3 = 16   **(i)** 11 + 6 = 17
(j) 20 + 0 = 20   **(k)** 15 + 1 = 16   **(l)** 13 + 3 = 16
(m) 10 + 4 = 14   **(n)** 10 + 10 = 20   **(o)** 14 + 6 = 20

Exercise 3.2

1.
(a) 5 + 14 = 19   **(b)** 5 + 15 = 20   **(c)** 7 + 13 = 20
   14 + 5 = 19   15 + 5 = 20   13 + 7 = 20
   19 − 5 = 14   20 − 5 = 15   20 − 7 = 13
   19 − 14 = 5   20 − 15 = 5   20 − 13 = 7

(d) 6 + 7 = 13   **(e)** 7 + 12 = 19   **(f)** 7 + 9 = 16
   7 + 6 = 13   12 + 7 = 19   9 + 7 = 16
   13 − 6 = 7   19 − 7 = 12   16 − 7 = 9
   13 − 7 = 6   19 − 12 = 7   16 − 9 = 7

(g) 8 + 9 = 17   **(h)** 5 + 11 = 16   **(i)** 9 + 9 = 18
   9 + 8 = 17   11 + 5 = 16   18 − 9 = 9
   17 − 8 = 9   16 − 5 = 11
   17 − 9 = 8   16 − 11 = 5

(j) 17 + 3 = 20   **(k)** 10 + 7 = 17   **(l)** 8 + 7 = 15
   3 + 17 = 20   7 + 10 = 17   7 + 8 = 15
   20 − 17 = 3   17 − 10 = 7   15 − 8 = 7
   20 − 3 = 17   17 − 7 = 10   15 − 7 = 8

2.
(a) 7 + 9 = 16   **(b)** 5 + 10 = 15   **(c)** 4 + 12 = 16
   9 + 7 = 16   10 + 5 = 15   12 + 4 = 16
   16 − 7 = 9   15 − 10 = 5   16 − 4 = 12
   16 − 9 = 7   15 − 5 = 10   16 − 12 = 4

(d) 5 + 8 = 13   **(e)** 5 + 7 = 12   **(f)** 11 + 8 = 19
   8 + 5 = 13   7 + 5 = 12   8 + 11 = 19
   13 − 5 = 8   12 − 5 = 7   19 − 11 = 8
   13 − 8 = 5   12 − 7 = 5   19 − 8 = 11

(g) 3 + 17 = 20   **(h)** 2 + 18 = 20   **(i)** 4 + 16 = 20
   17 + 3 = 20   18 + 2 = 20   16 + 4 = 20
   20 − 3 = 17   20 − 2 = 18   20 − 4 = 16
   20 − 17 = 3   20 − 18 = 2   20 − 16 = 4

(j) 12 + 8 = 20   **(k)** 6 + 14 = 20   **(l)** 14 + 6 = 20
   8 + 12 = 20   14 + 6 = 20   6 + 14 = 20
   20 − 12 = 8   20 − 6 = 14   20 − 14 = 6
   20 − 8 = 12   20 − 14 = 6   20 − 6 = 14

Exercise 3.3A

1. 17   2. 13   3. 16   4. 22
5. 24   6. 28   7. 41   8. 52
9. 66   10. 34   11. 86   12. 71

Exercise 3.3B

1. 13   2. 12   3. 15   4. 21
5. 23   6. 27   7. 40   8. 51
9. 65   10. 33   11. 85   12. 70

Exercise 3.3C

1. 11   2. 24   3. 32   4. 42
5. 53   6. 68   7. 20   8. 36
9. 58   10. 61   11. 73   12. 90

Exercise 3.3D

1. 16   2. 24   3. 35   4. 44
5. 52   6. 69   7. 21   8. 37
9. 59   10. 63   11. 77   12. 88

Exercise 3.4

1.
(a) 18   **(b)** 21   **(c)** 36   **(d)** 45
(e) 59   **(f)** 62   **(g)** 27   **(h)** 46
(i) 74   **(j)** 90   **(k)** 96   **(l)** 79
(m) 59   **(n)** 90   **(o)** 68

2.
(a) 21   **(b)** 31   **(c)** 41   **(d)** 53
(e) 61   **(f)** 72   **(g)** 34   **(h)** 57
(i) 81   **(j)** 95   **(k)** 101   **(l)** 83
(m) 64   **(n)** 92   **(o)** 71

Exercise 3.5

1.
(a) 12   **(b)** 21   **(c)** 37   **(d)** 46
(e) 55   **(f)** 64   **(g)** 21   **(h)** 42
(i) 63   **(j)** 70   **(k)** 85   **(l)** 91
(m) 64   **(n)** 83   **(o)** 53

2.
(a) 47   **(b)** 29   **(c)** 17   **(d)** 38
(e) 58   **(f)** 68   **(g)** 79   **(h)** 43
(i) 39   **(j)** 48   **(k)** 89   **(l)** 56
(m) 59   **(n)** 89   **(o)** 47

Exercise 3.6

1.
(a) 16 + 6 = 22   **(b)** 29 + 5 = 34   **(c)** 10 + 15 = 25
(d) 16 + 9 = 25   **(e)** 20 + 16 = 36   **(f)** 32 + 13 = 45

(g) 25 + 25 = 50   **(h)** 45 + 17 = 62   **(i)** 50 + 25 = 75
(j) 11 + 71 = 82   **(k)** 45 + 45 = 90   **(l)** 35 + 65 = 100
2.
(a) 32 + 16 = 48   **(b)** 18 + 10 = 28   **(c)** 14 + 26 = 40
(d) 26 + 4 = 30   **(e)** 13 + 8 = 21   **(f)** 39 + 10 = 49
(g) 47 + 11 = 58   **(h)** 13 + 63 = 76   **(i)** 21 + 7 = 28
(j) 20 + 20 = 40   **(k)** 15 + 15 = 30   **(l)** 3 + 53 = 56
(m) 40 + 20 = 60   **(n)** 25 + 45 = 70   **(o)** 44 + 9 = 53

Exercise 3.7
1.
(a) 250   **(b)** 340   **(c)** 160   **(d)** 190   **(e)** 140
(f) 300   **(g)** 200   **(h)** 380   **(i)** 220   **(j)** 310
2.
(a) 130   **(b)** 440   **(c)** 190   **(d)** 350   **(e)** 660
(f) 660   **(g)** 300   **(h)** 480   **(i)** 790   **(j)** 280
(k) 940   **(l)** 780   **(m)** 540   **(n)** 900   **(o)** 600

Exercise 3.8
1.
(a) 110   **(b)** 130   **(c)** 200   **(d)** 330   **(e)** 230
(f) 350   **(g)** 140   **(h)** 330   **(i)** 210   **(j)** 120
2.
(a) 140   **(b)** 220   **(c)** 160   **(d)** 150   **(e)** 280
(f) 420   **(g)** 200   **(h)** 520   **(i)** 700   **(j)** 230
(k) 930   **(l)** 730   **(m)** 470   **(n)** 800   **(o)** 900

Exercise 3.9
3.1
(a) 15 + 3 = 18   **(b)** 8 + 10 = 18   **(c)** 19 + 1 = 20
3.2
(a) 10 + 6 = 16   **(b)** 15 + 5 = 20   **(c)** 4 + 12 = 16
    6 + 10 = 16   5 + 15 = 20   12 + 4 = 16
    16 − 10 = 6   20 − 15 = 5   16 − 4 = 12
    16 − 6 = 10   20 − 5 = 15   16 − 12 = 4
3.3A
(a) 32   **(b)** 20   **(c)** 58
3.3B
(a) 34   **(b)** 65   **(c)** 72
3.3C
(a) 17   **(b)** 54   **(c)** 82
3.3D
(a) 19   **(b)** 44   **(c)** 65
3.4A
(a) 29   **(b)** 67   **(c)** 79
3.4B
(a) 32   **(b)** 83   **(c)** 45
3.5A
(a) 41   **(b)** 31   **(c)** 85

3.5B
(a) 75   **(b)** 47   **(c)** 68
3.6
(a) 42 + 6 = 48   **(b)** 68 + 10 = 78   **(c)** 56 + 9 = 65
3.7
(a) 730   **(b)** 470   **(c)** 690
3.8
(a) 240   **(b)** 520   **(c)** 860

Chapter 4
Exercise 4.1A
1.
(a) 8, 10, 12   **(b)** 6, 8, 10   **(c)** 16, 18, 20
(d) 14, 16, 18   **(e)** 18, 20, 22   **(f)** 10, 12, 14
2.
(a) 20, 25, 30   **(b)** 15, 20, 25   **(c)** 35, 40, 45
(d) 30, 35, 40   **(e)** 45, 50, 55   **(f)** 25, 30, 35
3.
(a) 10, 20, 30   **(b)** 70, 80, 90   **(c)** 50, 60, 70
(d) 80, 90, 100 **(e)** 40, 50, 60   **(f)** 90, 100, 110

Exercise 4.1B
1.
(a) 6, 4, 2   **(b)** 10, 8, 6   **(c)** 16, 14, 12
(d) 14, 12, 10   **(e)** 20, 18, 16   **(f)** 12, 10, 8
2.
(a) 20, 15, 10   **(b)** 10, 5, 0   **(c)** 55, 50, 45
(d) 25, 20, 15   **(e)** 45, 40, 35   **(f)** 40, 35, 30
3.
(a) 20, 10, 0   **(b)** 40, 30, 20   **(c)** 90, 80, 70
(d) 60, 50, 40   **(e)** 30, 20, 10   **(f)** 70, 60, 50

Exercise 4.1C
1.
(a) 2   **(b)** 5   **(c)** 2
(d) 10   **(e)** 10   **(f)** 5
2.
(a) 5   **(b)** 2   **(c)** 10
(d) 2   **(e)** 10   **(f)** 2

Exercise 4.2A
1.
(a) 9, 12, 15   **(b)** 15, 18, 21   **(c)** 27, 30, 33
(d) 18, 21, 24   **(e)** 12, 15, 18   **(f)** 24, 27, 30
2.
(a) 3, 6, 9   **(b)** 12, 15, 18   **(c)** 21, 24, 27
(d) 15, 18, 21   **(e)** 24, 27, 30   **(f)** 6, 9 ,12
3.
(a) 6, 9, 12   **(b)** 18, 21, 24   **(c)** 12, 15, 18
(d) 24, 27, 30   **(e)** 21, 24, 27   **(f)** 27, 30, 33

Exercise 4.2B

1.

(a) 6, 3, 0   **(b)** 9, 6, 3   **(c)** 21, 18, 15
(d) 12, 9, 6   **(e)** 30, 27, 24   **(f)** 18, 15, 12

2.

(a) 12, 9, 6   **(b)** 6, 3, 0   **(c)** 15, 12, 9
(d) 9, 6, 3   **(e)** 18, 15, 12   **(f)** 27, 24, 21

3.

(a) 18, 15, 12   **(b)** 12, 9, 6   **(c)** 6, 3, 0
(d) 30, 27, 24   **(e)** 15, 12, 9   **(f)** 21, 18, 15

Exercise 4.2C

1.

(a) 4, 8, 12   **(b)** 16, 20, 24   **(c)** 24, 28, 32
(d) 12, 16, 20   **(e)** 28, 32, 36   **(f)** 36, 40, 44

2.

(a) 8, 12, 16   **(b)** 16, 20, 24   **(c)** 28, 32, 36
(d) 20, 24, 28   **(e)** 36, 40, 44   **(f)** 32, 36, 40

3.

(a) 12, 16, 20   **(b)** 20, 24, 28   **(c)** 24, 28, 32
(d) 32, 36, 40   **(e)** 4, 8, 12   **(f)** 36, 40, 44

Exercise 4.2D

1.

(a) 12, 8, 4   **(b)** 8, 4, 0   **(c)** 16, 12, 8
(d) 36, 32, 28   **(e)** 20, 16, 12   **(f)** 28, 24, 20

2.

(a) 8, 4, 0   **(b)** 16, 12, 8   **(c)** 20, 16, 12
(d) 12, 8, 4   **(e)** 40, 36, 32   **(f)** 24, 20, 16

3.

(a) 20, 16, 12   **(b)** 12, 8, 4   **(c)** 16, 12, 8
(d) 24, 20, 16   **(e)** 36, 32, 28   **(f)** 28, 24, 20

Exercise 4.2E

1.

(a) 100, 200, 300   **(b)** 300, 400, 500
(c) 700, 800, 900   **(d)** 500, 600, 700
(e) 200, 300, 400   **(f)** 800, 900, 1000

2.

(a) 200, 300, 400   **(b)** 500, 600, 700
(c) 300, 400, 500   **(d)** 700, 800, 900
(e) 600, 700, 800   **(f)** 900, 1000, 1100

3.

(a) 400, 500, 600   **(b)** 700, 800, 900
(c) 300, 400, 500   **(d)** 900, 1000, 1100
(e) 600, 700, 800   **(f)** 800, 900, 1000

Exercise 4.2F

1.

(a) 300, 200, 100   **(b)** 400, 300, 200
(c) 800, 700, 600   **(d)** 700, 600, 500
(e) 900, 800, 700   **(f)** 500, 400, 300

2.

(a) 800, 700, 600   **(b)** 300, 200, 100
(c) 200, 100, 0   **(d)** 500, 400, 300
(e) 400, 300, 200   **(f)** 700, 600, 500

3.

(a) 200, 100, 0   **(b)** 500, 400, 300
(c) 300, 200, 100   **(d)** 700, 600, 500
(e) 900, 800, 700   **(f)** 600, 500, 400

Exercise 4.2G

1.

(a) 4   **(b)** 4   **(c)** 100
(d) 100   **(e)** 4   **(f)** 3

2.

(a) 4   **(b)** 3   **(c)** 100
(d) 4   **(e)** 3   **(f)** 100

Exercise 4.3

1.

(a) 4 rows, 3 columns, 4 rows of 3
(b) 2 rows, 7 columns, 2 rows of 7
(c) 5 rows, 4 columns, 5 rows of 4
(d) 10 rows, 2 columns, 10 rows of 2
(e) 3 rows, 4 columns, 3 rows of 4
(f) 5 rows, 8 columns, 5 rows of 8
(g) 3 rows, 10 columns, 3 rows of 10
(h) 4 rows, 4 columns, 4 rows of 4
(i) 2 rows, 2 columns, 2 rows of 2

2.

(a) 7 rows, 2 columns, 7 rows of 2
(b) 8 rows, 3 columns, 8 rows of 3
(c) 5 rows, 4 columns, 5 rows of 4
(d) 4 rows, 7 columns, 4 rows of 7
(e) 1 row, 9 columns, 1 row of 9
(f) 6 rows, 3 columns, 6 rows of 3
(g) 7 rows, 4 columns, 7 rows of 4
(h) 5 rows, 1 column, 5 rows of 1
(i) 3 rows, 3 columns, 3 rows of 3

Exercise 4.4

1.   **2.**

3.   **4.**

5.

6.

7.

8.

9.

10.

11.

12.
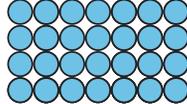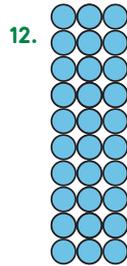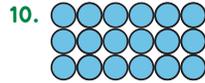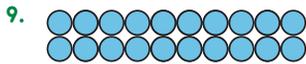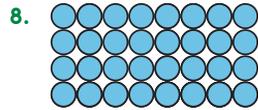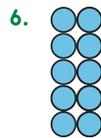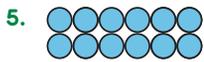
Exercise 4.5A

1.
(a) 20   (b) 30   (c) 50
(d) 14   (e) 10   (f) 10

2.
(a) 20   (b) 28   (c) 9
(d) 4   (e) 24   (f) 8

3.
(a) 20   (b) 24   (c) 12
(d) 40   (e) 27   (f) 21

Exercise 4.5B

1.
(a) 8   (b) 15   (c) 32   (d) 30   (e) 20
(f) 9   (g) 20   (h) 36   (i) 14   (j) 50

2.
(a) 12   (b) 27   (c) 40   (d) 50   (e) 18
(f) 24   (g) 9   (h) 35

3.
(a) 10   (b) 6   (c) 50   (d) 12   (e) 40
(f) 15   (g) 16   (h) 20   (i) 12

Exercise 4.5C

1.
(a) 15   (b) 6   (c) 30   (d) 9   (e) 12
(f) 18   (g) 24   (h) 27   (i) 21

2.
(a) 8   (b) 24   (c) 20   (d) 16   (e) 12
(f) 40   (g) 28   (h) 32   (i) 36

3.
(a) 8   (b) 30   (c) 27   (d) 40   (e) 15
(f) 30   (g) 20   (h) 6   (i) 32

4.
(a) 35   (b) 28   (c) 30   (d) 80   (e) 40
(f) 70   (g) 45   (h) 36   (i) 50

Exercise 4.6A

1.
(a) 8 altogether, 2 rows, 4 in each row, $8 \div 2 = 4$
(b) 12 altogether, 2 rows, 6 in each row, $12 \div 2 = 6$
(c) 6 altogether, 2 rows, 3 in each row, $6 \div 2 = 3$
(d) 10 altogether, 5 rows, 2 in each row, $10 \div 5 = 2$
(e) 35 altogether, 5 rows, 7 in each row, $35 \div 5 = 7$
(f) 20 altogether, 5 rows, 4 in each row, $20 \div 5 = 4$
(g) 20 altogether, 10 rows, 2 in each row, $20 \div 10 = 2$
(h) 40 altogether, 10 rows, 4 in each row, $40 \div 10 = 4$
(i) 50 altogether, 10 rows, 5 in each row, $50 \div 10 = 5$

2.
(a) 8 altogether, 4 rows, 2 in each row, $8 \div 4 = 2$
(b) 16 altogether, 4 rows, 4 in each row, $16 \div 4 = 4$
(c) 12 altogether, 4 rows, 3 in each row, $12 \div 4 = 3$
(d) 21 altogether, 3 rows, 7 in each row, $21 \div 3 = 7$
(e) 3 altogether, 3 rows, 1 in each row, $3 \div 3 = 1$
(f) 12 altogether, 3 rows, 4 in each row, $12 \div 3 = 4$
(g) 20 altogether, 4 rows, 5 in each row, $20 \div 4 = 5$
(h) 24 altogether, 3 rows, 8 in each row, $24 \div 3 = 8$
(i) 28 altogether, 4 rows, 7 in each row, $28 \div 4 = 7$

3.
(a) 18 altogether, 9 rows, 2 in each row, $18 \div 9 = 2$
(b) 45 altogether, 5 rows, 9 in each row, $45 \div 5 = 9$
(c) 100 altogether, 10 rows, 10 in each row, $100 \div 10 = 10$
(d) 18 altogether, 3 rows, 6 in each row, $18 \div 3 = 6$
(e) 2 altogether, 2 rows, 1 in each row, $2 \div 2 = 1$
(f) 9 altogether, 3 rows, 3 in each row, $9 \div 3 = 3$
(g) 24 altogether, 4 rows, 6 in each row, $24 \div 4 = 6$
(h) 27 altogether, 3 rows, 9 in each row, $27 \div 3 = 9$
(i) 36 altogether, 4 rows, 9 in each row, $36 \div 4 = 9$

Exercise 4.6B

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

2.
(a) 5   (b) 4   (c) 9
(d) 6   (e) 9   (f) 1
(g) 7   (h) 3   (i) 4

3.
(a) 2   (b) 3   (c) 6
(d) 4   (e) 12   (f) 8
(g) 2   (h) 6   (i) 2

Exercise 4.6C

1.
(a) 7 (b) 2 (c) 9 (d) 7 (e) 2
(f) 5 (g) 1 (h) 8 (i) 5 (j) 3

2.
(a) 6 (b) 7 (c) 2 (d) 8 (e) 5
(f) 3 (g) 1 (h) 9 (i) 10 (j) 4

3.
(a) 5 (b) 1 (c) 2 (d) 7 (e) 1
(f) 6 (g) 5 (h) 8 (i) 8

Exercise 4.6D

1.
(a) 5 (b) 3 (c) 3 (d) 8 (e) 7
(f) 7 (g) 1 (h) 2 (i) 5

2.
(a) 7 (b) 4 (c) 10 (d) 1 (e) 8
(f) 4 (g) 3 (h) 5 (i) 6

3.
(a) 4 (b) 2 (c) 6 (d) 9 (e) 1
(f) 5 (g) 7 (h) 8 (i) 3

Exercise 4.7A

1.

(a) $2 \times 8 = 16$
$8 \times 2 = 16$
$16 \div 8 = 2$
$16 \div 2 = 8$

(b) $5 \times 3 = 15$
$3 \times 5 = 15$
$15 \div 3 = 5$
$15 \div 5 = 3$

(c) $10 \times 5 = 50$
$5 \times 10 = 50$
$50 \div 5 = 10$
$50 \div 10 = 5$

(d) $2 \times 7 = 14$
$7 \times 2 = 14$
$14 \div 7 = 2$
$14 \div 2 = 7$

(e) $5 \times 6 = 30$
$6 \times 5 = 30$
$30 \div 6 = 5$
$30 \div 5 = 6$

(f) $2 \times 10 = 20$
$10 \times 2 = 20$
$20 \div 10 = 2$
$20 \div 2 = 10$

(g) $4 \times 2 = 8$
$2 \times 4 = 8$
$8 \div 2 = 4$
$8 \div 4 = 2$

(h) $5 \times 4 = 20$
$4 \times 5 = 20$
$20 \div 4 = 5$
$20 \div 5 = 4$

(i) $3 \times 10 = 30$
$10 \times 3 = 30$
$30 \div 10 = 3$
$30 \div 3 = 10$

2.

(a) $3 \times 4 = 12$
$4 \times 3 = 12$
$12 \div 4 = 3$
$12 \div 3 = 4$

(b) $4 \times 6 = 24$
$6 \times 4 = 24$
$24 \div 6 = 4$
$24 \div 4 = 6$

(c) $3 \times 8 = 24$
$8 \times 3 = 24$
$24 \div 8 = 3$
$24 \div 3 = 8$

(d) $3 \times 4 = 12$
$4 \times 3 = 12$
$12 \div 4 = 3$
$12 \div 3 = 4$

(e) $3 \times 6 = 18$
$6 \times 3 = 18$
$18 \div 6 = 3$
$18 \div 3 = 6$

(f) $4 \times 9 = 36$
$9 \times 4 = 36$
$36 \div 9 = 4$
$36 \div 4 = 9$

(g) $4 \times 10 = 40$
$10 \times 4 = 40$
$40 \div 10 = 4$
$40 \div 4 = 10$

(h) $3 \times 2 = 6$
$2 \times 3 = 6$
$6 \div 2 = 3$
$6 \div 3 = 2$

(i) $4 \times 1 = 4$
$1 \times 4 = 4$
$4 \div 1 = 4$
$4 \div 4 = 1$

Exercise 4.7B

1.

(a) $5 \times 4 = 20$
$4 \times 5 = 20$
$20 \div 4 = 5$
$20 \div 5 = 4$

(b) $2 \times 4 = 8$
$4 \times 2 = 8$
$8 \div 4 = 2$
$8 \div 2 = 4$

(c) $5 \times 7 = 35$
$7 \times 5 = 35$
$35 \div 7 = 5$
$35 \div 5 = 7$

(d) $10 \times 7 = 70$
$7 \times 10 = 70$
$70 \div 7 = 10$
$70 \div 10 = 7$

(e) $6 \times 4 = 24$
$4 \times 6 = 24$
$24 \div 4 = 6$
$24 \div 6 = 4$

(f) $9 \times 3 = 27$
$3 \times 9 = 27$
$27 \div 3 = 9$
$27 \div 9 = 3$

(g) $5 \times 9 = 45$
$9 \times 5 = 45$
$45 \div 9 = 5$
$45 \div 5 = 9$

(h) $10 \times 4 = 40$
$4 \times 10 = 40$
$40 \div 4 = 10$
$40 \div 10 = 4$

(i) $3 \times 5 = 15$
$5 \times 3 = 15$
$15 \div 5 = 3$
$15 \div 3 = 5$

2.

(a) $4 \times 5 = 20$
$5 \times 4 = 20$
$20 \div 5 = 4$
$20 \div 4 = 5$

(b) $9 \times 3 = 27$
$3 \times 9 = 27$
$27 \div 3 = 9$
$27 \div 9 = 3$

(c) $10 \times 2 = 20$
$2 \times 10 = 20$
$20 \div 2 = 10$
$20 \div 10 = 2$

(d) $2 \times 7 = 14$
$7 \times 2 = 14$
$14 \div 7 = 2$
$14 \div 2 = 7$

(e) $8 \times 3 = 24$
$3 \times 8 = 24$
$24 \div 3 = 8$
$24 \div 8 = 3$

(f) $9 \times 4 = 36$
$4 \times 9 = 36$
$36 \div 4 = 9$
$36 \div 9 = 4$

(g) $2 \times 6 = 12$
$6 \times 2 = 12$
$12 \div 6 = 2$
$12 \div 2 = 6$

(h) $4 \times 4 = 16$
$16 \div 4 = 4$

(i) $4 \times 3 = 12$
$3 \times 4 = 12$
$12 \div 3 = 4$
$12 \div 4 = 3$

Exercise 4.8

4.2
(a) 31, 34, 37 (b) 24, 28, 32 (c) 500, 600, 700
(d) 12, 8, 4 (e) 37, 34, 31 (f) 500, 400, 300

4.5A
(a) 21 (b) 4 (c) 20

4.5B
(a) 12 (b) 32 (c) 15 (d) 50

4.5C
(a) 27 (b) 4 (c) 50
(d) 24 (e) 15 (f) 18
(g) 36 (h) 14 (i) 21

4.6A
(a) 8 altogether, 4 rows, 2 in each row, $8 \div 4 = 2$
(b) 16 altogether, 2 rows, 8 in each row, $16 \div 2 = 8$
(c) 15 altogether, 3 rows, 5 in each row, $15 \div 3 = 5$

4.6D
(a) 8 (b) 3 (c) 4
(d) 10 (e) 8 (f) 6
(g) 2 (h) 8 (i) 7

4.7A
(a) $2 \times 9 = 18$
$9 \times 2 = 18$
$18 \div 9 = 2$
$18 \div 2 = 9$

(b) $4 \times 6 = 24$
$6 \times 4 = 24$
$24 \div 6 = 4$
$24 \div 4 = 6$

(c) $3 \times 4 = 12$
$4 \times 3 = 12$
$12 \div 4 = 3$
$12 \div 3 = 4$

4.7B
(a) $2 \times 8 = 16$
$8 \times 2 = 16$
$16 \div 8 = 2$
$16 \div 2 = 8$

(b) $3 \times 7 = 21$
$7 \times 3 = 21$
$21 \div 7 = 3$
$21 \div 3 = 7$

(c) $10 \times 9 = 90$
$9 \times 10 = 90$
$90 \div 9 = 10$
$90 \div 10 = 9$

Chapter 5

Exercise 5.1A
1. yes
2. no
3. yes
4. yes
5. no
6. no
7. yes
8. yes
9. yes

Exercise 5.1B
Answers for this exercise will vary.

Exercise 5.1C
1.
(a) $2\frac{1}{2}$
(b) $4\frac{1}{2}$

2.
(a) $9\frac{1}{2}$
(b) 11
(c) 13

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

4.
(a) 6
(b) $7\frac{1}{2}$
(c) $9\frac{1}{2}$

5.
(a) 13
(b) $14\frac{1}{2}$
(c) 16

6.
(a) 2
(b) $2\frac{1}{2}$
(c) 7

Exercise 5.1D
1. One half
2. Five halves
3. Four halves
4. Three halves
5. Four halves
6. Two halves
7. Six halves
8. Seven halves
9. Nine halves
10. Five halves
11. Eight halves
12. Seven halves

Exercise 5.1E
1.
(a) One square coloured
(b) Two squares coloured
(c) Three squares coloured
(d) Four squares coloured
(e) Two squares coloured
(f) Four squares coloured

2. Any five squares coloured in each question.

Exercise 5.2A
1. no
2. yes
3. yes
4. no
5. yes
6. no
7. yes
8. no
9. no
10. yes
11. no
12. yes

13. no
14. no
15. no

Exercise 5.2B
Answers for this exercise will vary.

Exercise 5.2C
1.
(a) $8\frac{1}{4}$
(b) 9

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

3.
(a) $7\frac{3}{4}$
(b) 8
(c) 10

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

5.
(a) 2
(b) $2\frac{3}{4}$
(c) $3\frac{2}{4}$

6.
(a) $9\frac{1}{4}$
(b) $9\frac{3}{4}$
(c) $10\frac{1}{4}$

Exercise 5.2D
1. Three quarters
2. Four quarters
3. Seven quarters
4. Two quarters
5. Six quarters
6. Nine quarters
7. Five quarters
8. Six quarters
9. Fourteen quarters
10. Five quarters
11. Ten quarters
12. Fifteen quarters

Exercise 5.2E
1.
(a) One square coloured
(b) One square coloured
(c) Two squares coloured
(d) Two squares coloured
(e) Four squares coloured
(f) Three squares coloured

2. Any two squares coloured in each question.

Exercise 5.3A
1. yes
2. no
3. yes
4. no
5. no
6. no
7. no
8. no
9. yes

Exercise 5.3B
Answers for this exercise will vary.

Exercise 5.3C
1.
(a) $5\frac{2}{3}$
(b) $6\frac{1}{3}$

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

3.
(a) $6\frac{2}{3}$
(b) $7\frac{2}{3}$
(c) $8\frac{1}{3}$

4.
(a) 9
(b) 10
(c) $11\frac{2}{3}$

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

6.
(a) $5\frac{2}{3}$ (b) 6 (c) $8\frac{1}{3}$

Exercise 5.3D

1. Six thirds or $\frac{6}{3}$ 2. One third or $\frac{1}{3}$
3. Four thirds or $\frac{4}{3}$ 4. Eight thirds or $\frac{8}{3}$
5. Eleven thirds or $\frac{11}{3}$ 6. Thirteen thirds or $\frac{13}{3}$
7. Three thirds or $\frac{3}{3}$ 8. Eight thirds or $\frac{8}{3}$
9. Seven thirds $\frac{7}{3}$

Exercise 5.3E

1.
(a) One square coloured (b) One square coloured
(c) Two squares coloured (d) Three squares coloured
(e) Five squares coloured (f) Four squares coloured
2. Any three squares coloured in each question.

Exercise 5.4A

1. yes 2. no 3. no
4. yes 5. no 6. yes

Exercise 5.4B

Answers for this exercise will vary.

Exercise 5.4C

1.
(a) $\frac{3}{5}$ (b) $1\frac{3}{5}$
2.
(a) 6 (b) $6\frac{4}{5}$ (c) $7\frac{2}{5}$
3.
(a) 10 (b) $10\frac{3}{5}$ (c) $11\frac{1}{5}$
4.
(a) $\frac{4}{5}$ (b) $1\frac{2}{5}$ (c) $1\frac{4}{5}$
5.
(a) $11\frac{2}{5}$ (b) 12 (c) $12\frac{3}{5}$
6.
(a) $3\frac{4}{5}$ (b) 4 (c) $5\frac{2}{5}$

Exercise 5.4D

1. three fifths or $\frac{3}{5}$ 2. seven fifths or $\frac{7}{5}$
3. eight fifths or $\frac{8}{5}$ 4. two fifths or $\frac{2}{5}$
5. four fifths or $\frac{4}{5}$ 6. eight fifths or $\frac{8}{5}$
7. four fifths or $\frac{4}{5}$ 8. eight fifths or $\frac{8}{5}$
9. nineteen fifths or $\frac{19}{5}$

Exercise 5.4E

1.
(a) One square coloured (b) One square coloured
(c) One square coloured (d) One square coloured
(e) Two squares coloured (f) Three squares coloured
2. Any two squares coloured in each question.

Exercise 5.5A

1. yes 2. no 3. no
4. no 5. no 6. yes

Exercise 5.5B

Answers for this exercise will vary.

Exercise 5.5C

1.
(a) $\frac{3}{10}$ (b) $\frac{8}{10}$
2.
(a) 5 (b) $5\frac{4}{10}$ (c) $5\frac{7}{10}$
3.
(a) $10\frac{8}{10}$ (b) $11\frac{1}{10}$ (c) $11\frac{5}{10}$
4.
(a) $\frac{9}{10}$ (b) $1\frac{2}{10}$ (c) $1\frac{4}{10}$
5.
(a) $19\frac{3}{10}$ (b) $19\frac{6}{10}$ (c) $19\frac{9}{10}$
6.
(a) $6\frac{8}{10}$ (b) $6\frac{9}{10}$ (c) $7\frac{7}{10}$

Exercise 5.5D

1. seven tenths 2. fifteen tenths
3. seventeen tenths 4. seven tenths
5. nine tenths 6. six tenths
7. five tenths 8. sixteen tenths
9. fourteen tenths

Exercise 5.5E

1.
(a) One square coloured (b) Four squares coloured
(c) Five squares coloured (d) Six squares coloured
(e) Seven squares coloured (f) Five squares coloured
2.
(a)–(c) Any two squares coloured.
(d)–(f) Any three squares coloured.

Exercise 5.6A

1. 3 2. 2 3. 1 4. 7

Exercise 5.6B

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

Exercise 5.6C

1. 1 2. 3 3. 2
4. 4 5. 5 6. 6

Exercise 5.6D

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

Exercise 5.6E

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

Exercise 5.6F

1. 7   2. 7   3. 5   4. 7
5. 1   6. 10   7. 9   8. 8
9. 10   10. 3   11. 8   12. 4

Exercise 5.6G

1. 8   2. 15   3. 7   4. 8
5. 2   6. 9   7. 12   8. 6
9. 8   10. 10   11. 9   12. 4

Chapter 6

Exercise 6.1

1.
(a) 1p   (b) 2p   (c) 5p   (d) 10p
(e) 20p   (f) 50p   (g) £1   (h) £2
(i) £5   (j) £10   (k) £20

2.
(a) 10p   (b) 5p   (c) £1   (d) £10
(e) 20p   (f) £5   (g) 1p   (h) £20
(i) 2p   (j) 50p   (k) £2   (l) 20p

3.
(a) £20   (b) 50p   (c) 20p   (d) £5
(e) 1p   (f) 2p   (g) £2   (h) £1
(i) £10   (j) 20p   (k) 50p   (l) 1p

Exercise 6.2A

1.
(a) 40p   (b) 30p   (c) 80p   (d) 50p
(e) 12p   (f) 21p   (g) 15p   (h) £1

2.
(a) 23p   (b) 53p   (c) 16p   (d) 13p
(e) 80p   (f) 45p   (g) 90p   (h) 42p

3.
(a) 14p   (b) 30p   (c) 65p   (d) 25p
(e) 90p   (f) 52p   (g) 61p   (h) 17p

4.
(a) 70p   (b) 35p   (c) 53p   (d) 92p

Exercise 6.2B (Answers in this exercise may vary.)

1.
(a) 5p, 5p **or** 5p, 2p, 2p, 1p
(b) 20p, 10p **or** 20p, 5p, 5p

(c) 50p, 10p **or** 50p, 5p, 5p
(d) 20p, 5p **or** 10p, 10p, 5p
(e) 50p, 5p **or** 20p, 20p, 10p, 5p
(f) 50p, 20p, 10p, 5p **or** 50p, 20p, 5p, 5p, 5p
(g) 50p, 50p **or** 50p, 20p, 20p, 10p
(h) 50p, 20p **or** 50p, 10p, 10p
(i) 10p, 5p **or** 5p, 5p, 5p

2.
(a) 20p, 2p **or** 20p, 1p, 1p
(b) 10p, 5p, 2p **or** 10p, 5p, 1p, 1p
(c) 20p, 10p, 5p, 1p **or** 20p, 5p, 5p, 5p, 1p
(d) 10p, 5p, 2p, 2p **or** 5p, 5p, 5p, 2p, 2p
(e) 50p, 5p, 1p **or** 50p, 2p, 2p, 2p
(f) 20p, 5p, 2p, 1p **or** 10p, 10p, 5p, 2p, 1p
(g) 20p, 20p, 1p **or** 20p, 10p, 10p, 1p
(h) 10p, 2p, 2p **or** 10p, 2p, 1p, 1p
(i) 50p, 10p, 5p, 2p **or** 50p, 10p, 5p, 1p, 1p

Exercise 6.2C

1.
(a) 20p, 5p   (b) 50p, 20p
(c) 20p, 20p   (d) 50p, 5p
(e) 50p, 10p   (f) 50p, 20p, 20p, 5p
(g) 20p, 10p   (h) 50p, 20p, 10p, 5p
(i) 50p, 20p, 20p

2.
(a) 10p, 2p   (b) 50p, 5p
(c) 50p, 20p, 2p   (d) 20p, 20p, 5p, 1p
(e) 20p, 5p, 2p, 2p   (f) 50p, 10p, 5p, 1p
(g) 20p, 10p, 2p, 2p (h) 50p, 20p, 20p, 2p
(i) 50p, 20p, 10p, 2p

Exercise 6.3

1.
(a) 20p, £0.20   (b) 50p, £0.50   (c) 90p, £0.90
(d) 55p, £0.55   (e) 40p, £0.40   (f) 25p, £0.25
(g) 75p, £0.75   (h) 65p, £0.65   (i) 5p, £0.05

2.
(a) 82p, £0.82   (b) 49p, £0.49   (c) 68p, £0.68
(d) 96p, £0.96   (e) 11p, £0.11   (f) 37p, £0.37
(g) 76p, £0.76   (h) 93p, £0.93   (i) 1p, £0.01

3.
(a) 45p, £0.45   (b) 91p, £0.91   (c) 80p, £0.80
(d) 98p, £0.98   (e) 67p, £0.67   (f) 30p, £0.30
(g) 85p, £0.85   (h) 52p, £0.52   (i) 99p, £0.99

Exercise 6.4 (Answers in this exercise may vary.)

1.
(a) 50p, 50p
(b) 50p, 50p, 20p, 10p

(c) 50p, 50p, 50p, 20p, 20p

(d) 50p, 50p, 50p, 50p, 50p, 20p, 10p

(e) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p

(f) 50p, 50p, 50p, 50p, 50p, 50p, 20p, 20p

(g) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p, 20p, 20p

(h) 50p, 50p, 50p, 50p, 50p, 50p, 10p

(i) 50p, 50p, 50p, 50p, 20p

2.

(a) 50p, 50p

(b) 50p, 50p, 50p, 20p, 10p

(c) 50p, 50p, 20p

(d) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p, 10p

(e) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 20p, 20p

(f) 50p, 50p, 50p, 50p, 20p, 20p

(g) 50p, 50p, 50p, 50p, 50p, 50p, 20p, 10p

(h) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p

(i) 50p, 50p, 50p, 50p, 50p, 10p

3.

(a) £1, £1

(b) £1, 10p

(c) £1, £1, £1, 50p, 20p

(d) £1, £1, £1, £1, 50p, 10p

(e) £1, £1, 50p, 20p, 20p

(f) £1, £1, £1, 50p

(g) £1, £1, 20p, 10p

(h) £1, £1, £1

(i) £1, £1, £1, £1, 20p

4.

(a) £2, £1, 50p

(b) £2, 20p

(c) £2, £2, 50p, 10p

(d) £2, £1, 20p, 20p

(e) £1, 50p, 20p

(f) £2, £2, £1

(g) £2, £2, 50p

(h) 50p, 20p, 10p

(i) £2, £2, 50p, 20p, 20p

Exercise 6.5

6.1

(a) 10p   **(b)** £2   **(c)** 5p   **(d)** 1p

(e) £10   **(f)** £1   **(g)** 2p   **(h)** £5

(i) 50p   **(j)** £20   **(k)** 20p

6.2A

(a) 20p   **(b)** 61p   **(c)** 75p   **(d)** 24p

6.2B (Answers in this question may vary.)

(a) 10p, 10p or 10p, 5p, 5p

(b) 50p, 20p, 20p, 5p or 50p, 20p, 10p, 10p, 5p

(c) 20p, 20p or 20p, 10p, 10p

(d) 20p, 10p, 5p or 20p, 5p, 5p, 5p

(e) 50p, 10p or 50p, 5p, 5p

(f) 50p, 5p or 50p, 2p, 2p, 1p

6.2C

(a) 20p, 5p   **(b)** 50p, 10p   **(c)** 50p, 20p, 20p

(d) 50p, 20p, 5p   **(e)** 50p, 5p   **(f)** 20p, 10p

6.3

(a) 90p, £0.90   **(b)** 60p, £0.60   **(c)** 30p, £0.30

(d) 45p, £0.45   **(e)** 25p, £0.25   **(f)** 75p £0.75

6.4

(a) 50p, 50p, 50p, 50p

(b) 50p, 50p, 50p, 50p, 50p, 50p, 20p, 20p

(c) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p, 50p, 10p

(d) 50p, 50p, 50p, 50p, 20p, 10p

(e) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 20p

(f) 50p, 50p, 50p, 50p, 50p, 50p, 50p, 20p, 20p

Chapter 7
Exercise 7.1A

1.

(a) 3 o'clock   **(b)** 6 o'clock   **(c)** 11 o'clock

(d) 8 o'clock   **(e)** 1 o'clock   **(f)** 10 o'clock

(g) Half past 6   **(h)** Half past 12   **(i)** Half past 1

(j) Half past 4   **(k)** Half past 8   **(l)** Half past 10

Exercise 7.1B

1.

(a) 8 o'clock   **(b)** 3 o'clock   **(c)** 7 o'clock

(d) 4 o'clock   **(e)** 5 o'clock   **(f)** 6 o'clock

2.

(a) Half past 3   **(b)** Half past 6   **(c)** Half past 12

(d) Half past 5   **(e)** Half past 9   **(f)** Half past 4

Exercise 7.2A

1.

(a) Quarter past 5   **(b)** Quarter past 8

(c) Quarter past 10   **(d)** Quarter past 12

(e) Quarter past 11   **(f)** Quarter past 2

(g) Quarter past 6   **(h)** Quarter past 1

(i) Quarter past 7

2.

(a) Quarter to 2   **(b)** Quarter to 4   **(c)** Quarter to 8

(d) Quarter to 10   **(e)** Quarter to 1   **(f)** Quarter to 6

(g) Quarter to 12   **(h)** Quarter to 5   **(i)** Quarter to 9

Exercise 7.2B

1.

(a) Quarter past 6   **(b)** Quarter past 2

(c) Quarter past 5   **(d)** Quarter past 12

(e) Quarter past 9   **(f)** Quarter past 11

(g) Quarter past 8   **(h)** Quarter past 10

(i) Quarter past 3

2.

(a) Quarter to 2   **(b)** Quarter to 4   **(c)** Quarter to 11

(d) Quarter to 7   **(e)** Quarter to 3   **(f)** Quarter to 12

(g) Quarter to 10   **(h)** Quarter to 9   **(i)** Quarter to 1

Exercise 7.3A

1.
(a) 1:15 **(b)** 7:15 **(c)** 8:15
(d) 10:15 **(e)** 5:15 **(f)** 6:15

2.
(a) 12:45 **(b)** 7:45 **(c)** 5:45
(d) 2:45 **(e)** 11:45 **(f)** 1:45

Exercise 7.3B

1.
(a) 2:15 **(b)** 6:15 **(c)** 4:15
(d) 11:15 **(e)** 9:15 **(f)** 8:15
(g) 7:15 **(h)** 1:15 **(i)** 5:15

2.
(a) 1:45 **(b)** 5:45 **(c)** 3:45
(d) 10:45 **(e)** 8:45 **(f)** 7:45
(g) 6:45 **(h)** 12:45 **(i)** 2:45

Exercise 7.4

1.
(a) 1 hour 30 minutes **(b)** 3 hours 30 minutes
(c) 2 hours 30 minutes **(d)** 4 hours 30 minutes
(e) 3 hours 30 minutes **(f)** 30 minutes

2.
(a) 3 hours 30 minutes **(b)** 1 hour 30 minutes
(c) 3 hours 30 minutes **(d)** 3 hours 30 minutes
(e) 2 hours 30 minutes **(f)** 30 minutes

3.

Activity	Start Time	Finish Time	Duration
Football	9:00	10:30	1 hr 30 mins
Rugby	11:00	1:30	2 hrs 30 mins
Tennis	12:30	4:00	3 hrs 30 mins
Hockey	12:30	2.00	1 hr 30 mins
Netball	2:00	4:30	2 hrs 30 mins

Exercise 7.5

1. 9:00 am **2.** 1 hour **3.** 10:30 am
4. 30 minutes **5.** 11 am **6.** 1:00 pm
7. P.E. **8.** Music **9.** 3:00 pm

Exercise 7.6

7.1A
(a) 6 o'clock **(b)** Half past 12 **(c)** 9 o'clock

7.1B
(a) Half past 8 **(b)** 2 o'clock **(c)** Half past 9

7.2A
(a) 2:15 **(b)** 5:45 **(c)** 12:15

7.2B
(a) Quarter past 3 **(b)** Quarter to 7 **(c)** Quarter to 1

7.3B
(a) 9:15 **(b)** 6:15 **(c)** 4:15
(d) 1:15 **(e)** 2:45 **(f)** 7:45

7.4
(a) 3 hours 30 minutes **(b)** 3 hours 30 minutes
(c)

Activity	Start Time	Finish Time	Duration
Maths	9:00 am	10:30 am	1 hour 30 minutes
French	11:00 am	11:30 am	30 minutes
Literacy	11:30 am	1:00 pm	1 hour 30 minutes
Art	1:30 pm	4:00 pm	2 hours 30 minutes

7.5
(a) P2 **(b)** P1 **(c)** P4

Chapter 8

Exercise 8.1A

1.
(a) 2 cm **(b)** 5 cm **(c)** 3 cm **(d)** 6 cm
(e) 9 cm **(f)** 7 cm **(g)** 10 cm **(h)** 8 cm

2.
(a) 2 cm **(b)** 4 cm **(c)** 6 cm **(d)** 8 cm
(e) 10 cm **(f)** 12 cm **(g)** 14 cm

Exercise 8.1B

1. 200 ml **2.** 0 ml **3.** 100 ml
4. 500 ml **5.** 300 ml **6.** 400 ml

Exercise 8.1C

1. 500 ml **2.** 100 ml **3.** 300 ml
4. 1000 ml **5.** 0 ml **6.** 800 ml
7. 900 ml **8.** 700 ml **9.** 400 ml
10. 500 ml **11.** 750 ml **12.** 250 ml

Exercise 8.1D

1.
(a) 3 kg **(b)** 7 kg **(c)** 1 kg
(d) 2 kg **(e)** 8 kg **(f)** 9 kg
(g) 6 kg **(h)** 0 kg **(i)** 5 kg

2.
(a) 700 g **(b)** 600 g **(c)** 900 g
(d) 100 g **(e)** 400 g **(f)** 500 g
(g) 300 g **(h)** 800 g **(i)** 200 g

Exercise 8.2A

1. 5 cm **2.** 3 cm **3.** 7 cm **4.** 4 cm
5. 2 cm **6.** 9 cm **7.** 8 cm **8.** 1 cm
9. 15 cm **10.** 13 cm

Exercise 8.2B

1. 6 cm **2.** 3 cm **3.** 8 cm
4. 7 cm **5.** 12 cm **6.** 15 cm

Exercise 8.2C

Check answers using a ruler.

Exercise 8.3

1.
(a) 3 cm **(b)** 6 cm **(c)** 5 cm **(d)** 9 cm
(e) 7 cm **(f)** 8 cm **(g)** 1 cm **(h)** 2 cm

Exercise 8.4A

1.
(a) 4 square centimetres **(b)** 6 square centimetres
(c) 10 square centimetres **(d)** 4 square centimetres
(e) 9 square centimetres **(f)** 4 square centimetres
(g) 7 square centimetres **(h)** 2 square centimetres

2.
(a) 5 square centimetres **(b)** 7 square centimetres
(c) 6 square centimetres **(d)** 10 square centimetres

Exercise 8.4B

Answers in this exercise will vary.

Exercise 8.5

8.1A
(a) 2 cm **(b)** 12 cm

8.1B
(a) 400 ml **(b)** 300 ml **(c)** 1000 ml

8.1D
(a) 8 kg **(b)** 500 g

8.2A
(a) 5 cm **(b)** 7 cm

8.2C
Check answers using a ruler.

8.3
(a) 2 cm **(b)** 9 cm

8.4
(a) 10 square centimetres **(b)** 12 square centimetres
(c) 6 square centimetres **(d)** 9 square centimetres

Chapter 9
Exercise 9.1

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

Exercise 9.2

1.

2.

3.
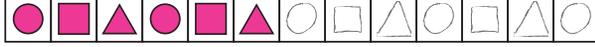
4.

5.
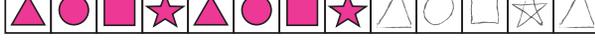
6.

7.
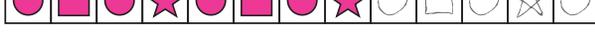
8.

9.
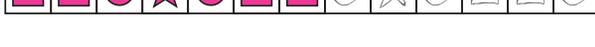
Exercise 9.3

1.
(a) 16, 18, 20 **(b)** 36, 38, 40 **(c)** 62, 64, 66 **(d)** 50, 52, 54 **(e)** 66, 68, 70 **(f)** 84, 86, 88 **(g)** 16, 14, 12 **(h)** 6, 4, 2 **(i)** 24, 22, 20
(j) 32, 30, 28 **(k)** 44, 42, 40 **(l)** 28, 26, 24

2.
(a) 25, 30, 35 (b) 45, 50, 55 (c) 85, 90, 95
(d) 55, 60, 65 (e) 75, 80, 85 (f) 95, 100, 105
(g) 10, 5, 0 (h) 15, 10, 5 (i) 35, 30, 25
(j) 45, 40, 35 (k) 60, 55, 50 (l) 20, 15, 10

3.
(a) 40, 50, 60 (b) 60, 70, 80 (c) 90, 100, 110
(d) 70, 80, 90 (e) 50, 60, 70 (f) 110, 120, 130
(g) 20, 10, 0 (h) 50, 40, 30 (i) 70, 60, 50
(j) 30, 20, 10 (k) 40, 30, 20 (l) 90, 80, 70

4.
(a) 24, 27, 30 (b) 39, 42, 45 (c) 30, 33, 36
(d) 21, 24, 27 (e) 49, 52, 55 (f) 60, 63, 66
(g) 21, 18, 15 (h) 9, 6, 3 (i) 27, 24, 21
(j) 51, 48, 45 (k) 12, 9, 6 (l) 61, 58, 55

5.
(a) 28, 32, 36 (b) 24, 28, 32 (c) 44, 48, 52
(d) 16, 20, 24 (e) 52, 56, 60 (f) 40, 44, 48
(g) 18, 14, 10 (h) 28, 24, 20 (i) 24, 20, 16
(j) 48, 44, 40 (k) 12, 8, 4 (l) 44, 40, 36

Exercise 9.4
1.
(a) 14, 16, **18**, **20**, 22 (b) 30, **33**, 36, **39**, 42
(c) 15, 20, **25**, 30, **35** (d) 12, **16**, 20, 24, **28**
(e) 28, 32, **36**, 40, **44** (f) 10, 20, **30**, 40, **50**
(g) 18, **20**, 22, **24**, 26 (h) 50, 55, **60**, 65, **70**
(i) 30, 40, **50**, **60**, **70**

2.
(a) 24, 22, **20**, 18, **16** (b) 60, **55**, 50, **45**, 40, **35**
(c) 33, 30, **27**, 24, **21** (d) 32, 28, **24**, 20, **16**
(e) 20, 18, **16**, 14, **12** (f) 27, 24, **21**, 18, **15**
(g) 80, **70**, 60, **50**, 40 (h) 90, 85, **80**, 75, **70**
(i) 40, 36, **32**, 28, **24**

Exercise 9.5
9.1
(a)

(b)

9.2
(a)

(b)

9.3
(a) 24, 26, 28 (b) 34, 32, 30 (c) 65, 70, 75
(d) 25, 20, 15 (e) 30, 20, 10 (f) 28, 32, 36
(g) 18, 15, 12 (h) 39, 42, 45 (i) 28, 24, 20

9.4
(a) 24, 26, **28**, 30, **32** (b) 27, **31**, 35, **39**, 43
(c) 50, 40, **30**, 20, **10** (d) 30, 27, **24**, 21, **18**
(e) 30, 26, **22**, 18, **14** (f) 55, 50, **45**, 40, **35**

Chapter 10
Exercise 10.1A
1. 29 **>** 20
2. 27 **>** 17
3. 49 **<** 78
4. 67 **<** 89
5. 75 **<** 90
6. 12 **<** 28
7. 55 **>** 37
8. 82 **<** 91
9. 34 **<** 76
10. 78 **<** 80
11. 19 **<** 91
12. 93 **<** 100

Exercise 10.1B
1. $22 + 1 = 23$
2. $15 + 5 \neq 22$
3. $43 - 3 = 40$
4. $10 + 10 = 20$
5. $18 = 20 - 2$
6. $28 \neq 20 + 7$
7. $15 + 5 = 10 + 10$
8. $54 + 2 = 56$
9. $24 - 2 \neq 21$
10. $62 = 60 + 2$
11. $19 + 10 \neq 30$
12. $25 - 25 = 10 - 10$

Exercise 10.2A
1. $45 + \mathbf{3} = 48$
2. $28 - \mathbf{4} = 24$
3. $50 + \mathbf{10} = 60$
4. $56 - \mathbf{2} = 54$
5. $39 = 40 - \mathbf{1}$
6. $67 = 10 + \mathbf{57}$
7. $32 + \mathbf{8} = 40$
8. $56 - \mathbf{5} = 51$
9. $20 + \mathbf{10} = 30$
10. $80 - \mathbf{5} = 75$
11. $92 = 86 + \mathbf{6}$
12. $63 = 68 - \mathbf{5}$
13. $100 = \mathbf{90} + 10$
14. $28 + \mathbf{2} = 30$
15. $98 - \mathbf{5} = 93$

Exercise 10.2B
1. $5 \times \mathbf{8} = 40$
2. $2 \times \mathbf{10} = 20$
3. $3 \times \mathbf{2} = 6$
4. $4 \times \mathbf{6} = 24$
5. $9 = 3 \times \mathbf{3}$
6. $16 = 4 \times \mathbf{4}$
7. $\mathbf{4} \times 10 = 40$
8. $5 \times \mathbf{10} = 50$
9. $2 \times \mathbf{9} = 18$
10. $3 \times \mathbf{4} = 12$
11. $20 = 4 \times \mathbf{5}$
12. $6 = 2 \times \mathbf{3}$
13. $10 = \mathbf{2} \times 5$
14. $8 \times \mathbf{2} = 16$
15. $5 \times \mathbf{5} = 25$

Exercise 10.2C
1. $34 + \mathbf{6} = 40$
2. $47 - \mathbf{7} = 40$
3. $54 = \mathbf{47} + 7$
4. $56 - \mathbf{5} = 51$
5. $30 = 22 + \mathbf{8}$
6. $92 = 100 - \mathbf{8}$

Exercise 10.2D
1. $4 \times \mathbf{4} = 16$
2. $5 \times \mathbf{7} = 35$
3. $24 = \mathbf{6} \times 4$
4. $10 \times \mathbf{5} = 50$
5. $18 = 2 \times \mathbf{9}$
6. $12 = 3 \times \mathbf{4}$

Exercise 10.3
10.1A
(a) 72 **>** 23 (b) 56 **>** 43 (c) 100 **>** 39
10.1B
(a) $25 + 1 = 26$ (b) $65 + 5 \neq 71$ (c) $54 - 3 \neq 50$
10.2A
(a) $47 + \mathbf{1} = 48$ (b) $67 - \mathbf{2} = 65$ (c) $59 + \mathbf{6} = 65$

10.2B

(a) $5 \times \mathbf{8} = 40$ (b) $2 \times \mathbf{10} = 20$ (c) $3 \times \mathbf{2} = 6$

10.2C

(a) $45 + \mathbf{10} = 55$ (b) $27 - \mathbf{7} = 20$ (c) $34 = \mathbf{30} + 4$

10.2D

(a) $5 \times \mathbf{9} = 45$ (b) $2 \times \mathbf{10} = 20$ (c) $12 = \mathbf{3} \times 4$

Chapter 11

Exercise 11.1A

1.

Shape	Name	Number of sides	Number of corners
	Square	4	4
	Rectangle	4	4
	Pentagon	5	5
	Hexagon	6	6
	Circle	1	0

2.

Shape	Name	Number of sides	Number of corners
	Hexagon	6	6
	Pentagon	5	5
	Rectangle	4	4
	Square	4	4
	Circle	1	0

Exercise 11.1B

1.

(a) false   (b) true   (c) false   (d) false

(e) true   (f) true   (g) true   (h) true

(i) true   (j) true

2.

(a) Square or Rectangle   (b) Circle   (c) Pentagon

(d) Square   (e) Hexagon   (f) Circle

Exercise 11.1C

Has straight sides   Blue
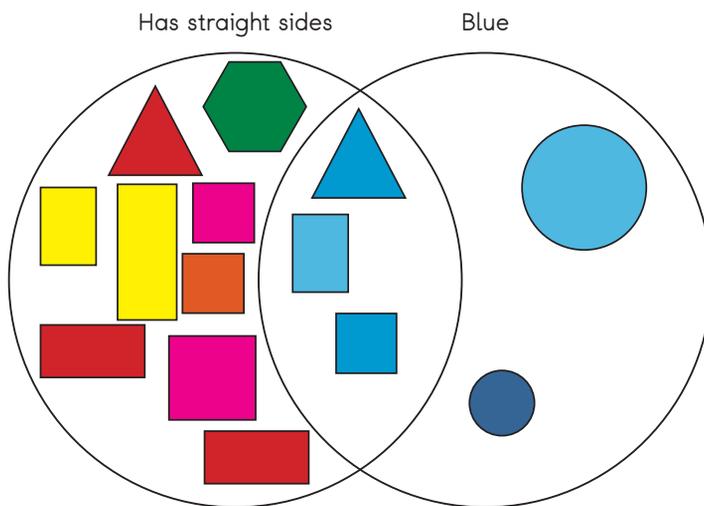
Exercise 11.2A

1. more than   2. less than   3. right-angle

4. more than   5. right-angle   6. less than

Exercise 11.2B

1. yes   2. yes   3. yes

4. yes   5. no   6. no

7. no   8. no   9. no

Exercise 11.3A

Shape	Name	Number of edges	Number of faces	Number of corners
	Sphere	0	1	0
	Cube	12	6	8
	Square Based Pyramid	8	5	5
	Cylinder	2	3	0
	Cuboid	12	6	8

Exercise 11.3B

1.

(a) Circle   (b) Square   (c) Circle   (d) Square

(e) Circle   (f) Circle

2.

(a) Square, Triangle   (b) Rectangle (square)

(c) Triangle   (d) Rectangle

(e) Rectangle, Hexagon   (f) Rectangle, Pentagon

(g) Rectangle, Triangle   (h) Triangle

(i) Circle

3.

(a) Cube   (b) Cylinder

(c) Cuboid   (d) Square based Pyramid

Exercise 11.4

11.1
(a) A square has **four** edges and **four** corners.
(b) A pentagon has **five** edges and **five** corners. The edges are **equal** in length.
(c) A circle has **one** edge and **zero** corners.
(d) A hexagon has **six** edges and **six** corners.

11.2
(a) more than **(b)** less than **(c)** right–angle

11.3
(a) A cube has **twelve** edges, **six** faces and **eight** corners. The faces are **square** shapes.
(b) A cylinder has **two** edges, **three** faces and **no** corners. The top and bottom faces are **circle** shapes.
(c) A square based pyramid has **eight** edges, **five** faces and **five** corners. The faces are **triangle** and **square** shapes.

Chapter 12

Exercise 12.1A
1. yes 2. yes 3. yes
4. no 5. yes 6. no

Exercise 12.1B
1. left 2. right 3. right
4. left 5. right 6. left

Exercise 12.1C

Start	Half turn	Quarter turn right	Quarter turn left

Exercise 12.2
1.
(a) Supermarket **(b)** School
(c) Petrol Station **(d)** Supermarket
2.
(a) Slide **(b)** Pond
(c) Seesaw **(d)** Slide

Exercise 12.3
1.
(a) Half turn. **(b)** Quarter turn right.
(c) Quarter turn left. **(d)** Full turn.
2.
(a) Quarter turn right. **(b)** Quarter turn left.
(c) Half turn. **(d)** Full turn.

Exercise 12.4A
1.
(a) A5 **(b)** B2 **(c)** D3 **(d)** E1 **(e)** A2
(f) C4 **(g)** D4 **(h)** E5 **(i)** B3
2.
(a) D1 **(b)** F4 **(c)** C1 **(d)** F6 **(e)** D3
(f) C5 **(g)** F1 **(h)** D6 **(i)** A6 **(j)** B2
(k) A1 **(l)** A4
3.
(a) Tree **(b)** Ship **(c)** Bins **(d)** Pond **(e)** Slide
(f) Four square

Exercise 12.4B
1.
(a)   **(b)** H

2.
(a)   **(b)** Rectangle
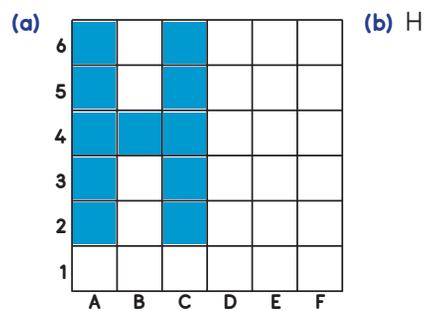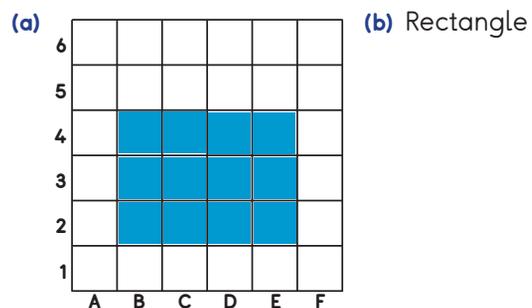
Exercise 12.5

12.1
(a) Half turn.
(b) Quarter turn left.
(c) Quarter turn left.
(d) Half turn.

12.2
(a) Swing
(b) Slide

12.3
(a) Full turn.
(b) Half turn.
(c) Quarter turn left.

12.4
(a) C3
(b) B5
(c) F6
(d) C1
(e) Tiger
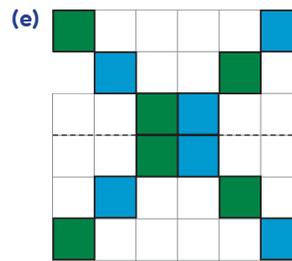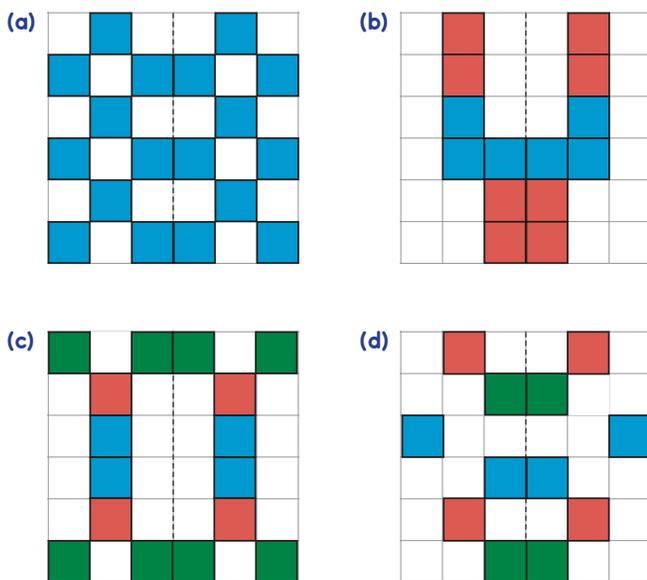(f) Lion
(g) Elephant

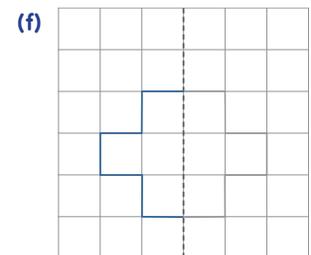# Chapter 13

Exercise 13.1A

1.
(a) yes
(b) yes
(c) no
(d) yes
(e) no
(f) yes
(g) no
(h) no
(i) yes

2.
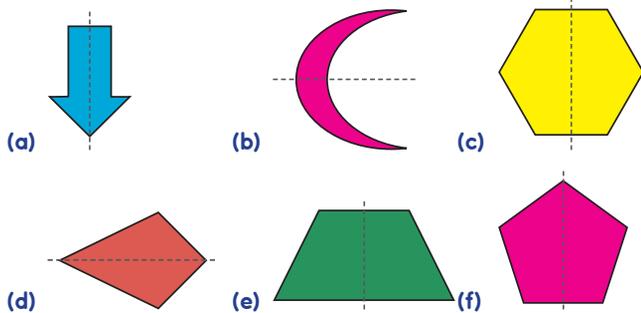
Exercise 13.1B

1.
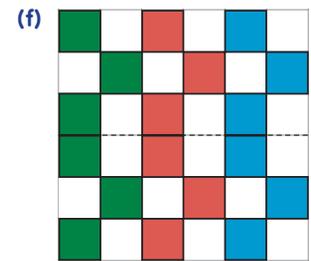
2.
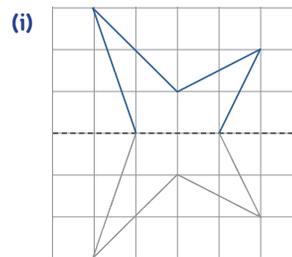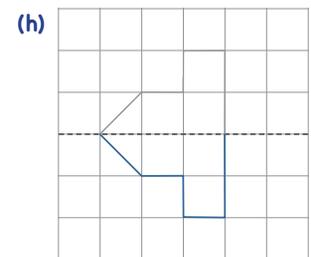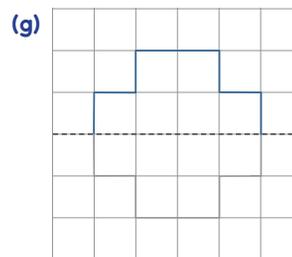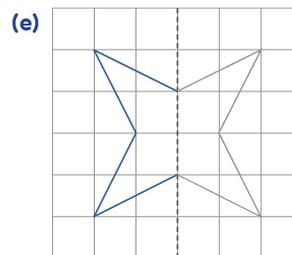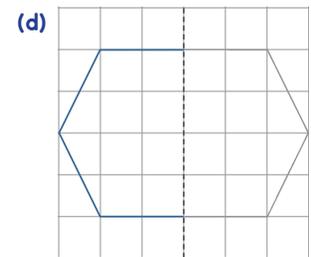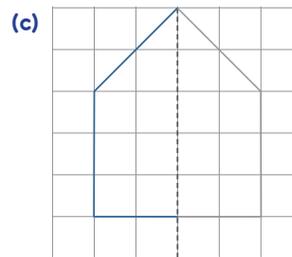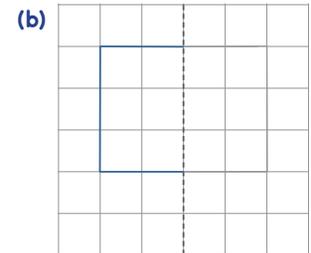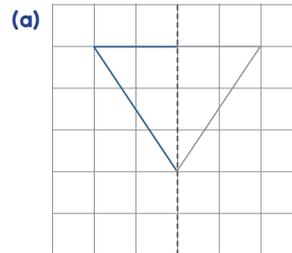
Chapter 14

Exercise 14.1A

Sport	Tally	Total
Football	⊥⊞⊤ I	6
Rugby	⊥⊞⊤	5
Swimming	IIII	4
Running	III	3
Weightlifting	IIII	4

Exercise 14.1B

Answers in this exercise will vary.

Exercise 14.2

2. Red   **3.** Black   **4.** Fourteen

5. Nine   **6.** Twenty–seven

Exercise 14.3A
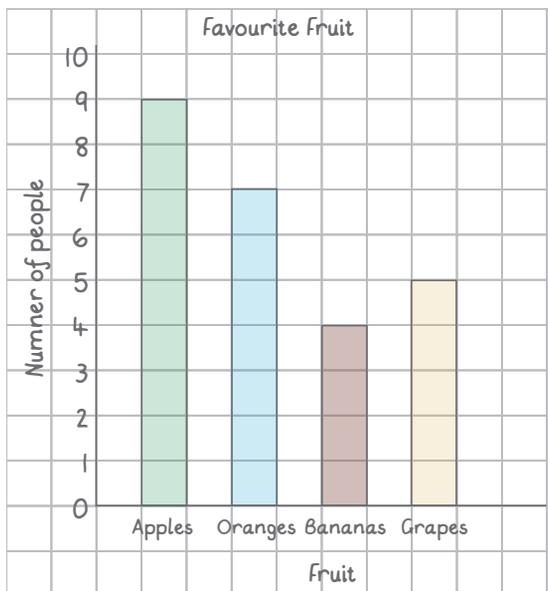
Exercise 14.3B

Answers in this exercise will vary.

Exercise 14.4

2. Ice cream   **3.** Chips   **4.** Four

5. Three   **6.** Eighteen

Exercise 14.5

1. P.E.   **2.** English   **3.** Seven

4. Six   **5.** Three   **6.** Twenty–five

Exercise 14.6

Transport	Total
Car	☺ ☺ ☺ ☺ ☺ ☺
Bus	☺ ☺ ☺
Bike	☺ ☺ ☺ ☺
Walk	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺
Scooter	☺ ☺