

ZETA PRIMARY

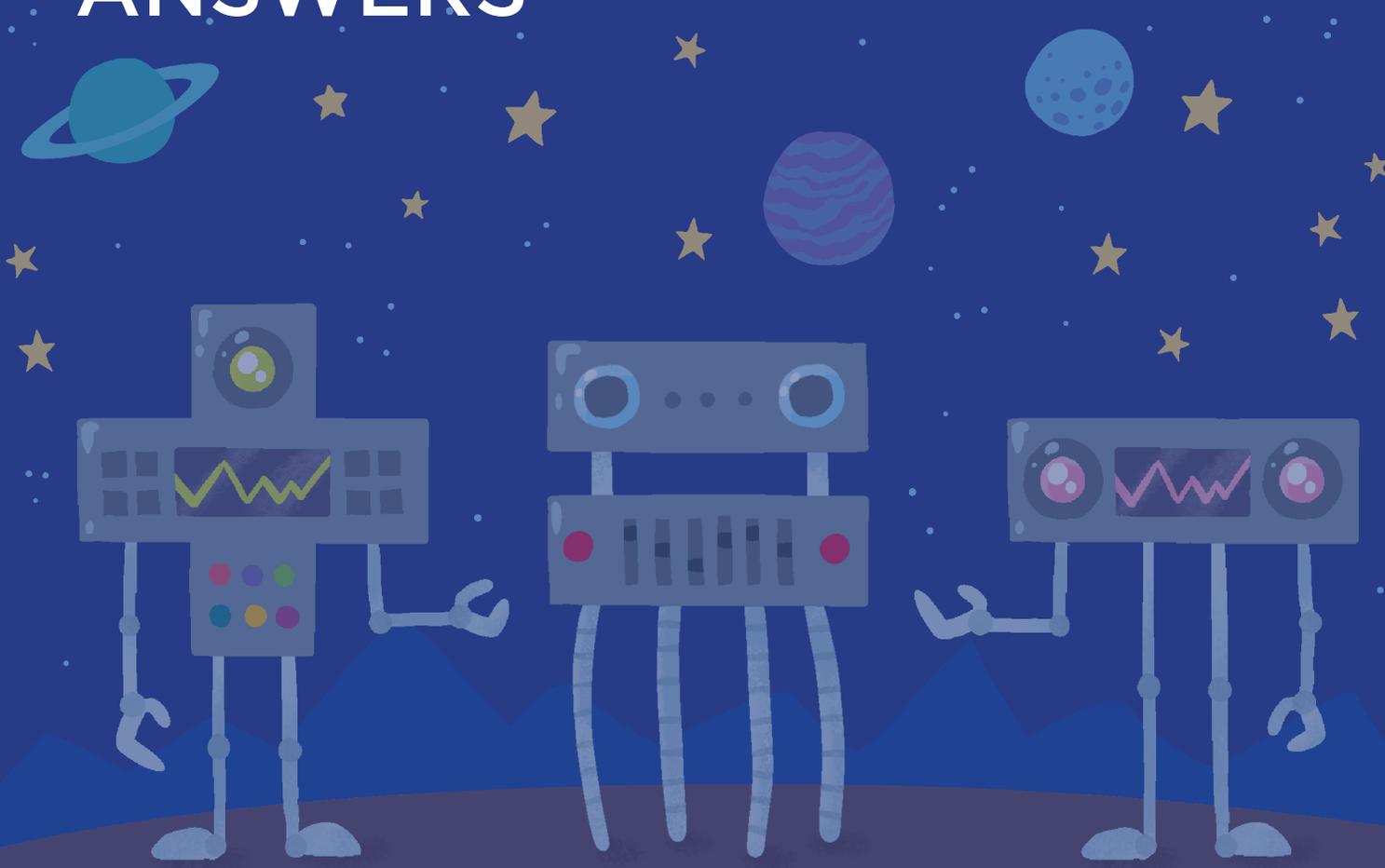
2A

MATHS & NUMERACY

CfE Second Level

TEXTBOOK

ANSWERS



Chapter 1

Exercise 1.1A

- | | | | |
|---------|---------|---------|---------|
| 1. 305 | 2. 517 | 3. 942 | 4. 801 |
| 5. 219 | 6. 102 | 7. 355 | 8. 611 |
| 9. 209 | 10. 122 | 11. 436 | 12. 212 |
| 13. 705 | 14. 599 | 15. 170 | 16. 385 |
| 17. 618 | 18. 562 | 19. 404 | 20. 913 |

Exercise 1.1B

- | | | | |
|----------|----------|----------|----------|
| 1. 1899 | 2. 3706 | 3. 2002 | 4. 7450 |
| 5. 9108 | 6. 5312 | 7. 1688 | 8. 4903 |
| 9. 2521 | 10. 8414 | 11. 1775 | 12. 4367 |
| 13. 8552 | 14. 3026 | 15. 9099 | 16. 2102 |
| 17. 6305 | 18. 1901 | 19. 5824 | 20. 7417 |

Exercise 1.2A

- Four hundred and twenty-four.
- Three hundred and sixty-two.
- Two hundred and seventy-three.
- Two hundred and nine.
- One hundred and eleven.
- Four hundred and fifty-three.
- Eight hundred and ninety-seven.
- Six hundred and fifty-four.
- One hundred and twenty-three.
- Three hundred and forty-two.
- Eight hundred and sixty-five.
- One hundred and two.
- Seven hundred and fifty-four.
- Six hundred and one.
- Nine hundred and seventy-five.
- Two hundred and eleven.
- Seven hundred and eighty-eight.
- Two hundred and twenty-two.
- Four hundred and sixty-seven.
- Nine hundred and eighty-four.

Exercise 1.2B

- One thousand and twenty-five.
- Nine thousand, two hundred and seventy-two.
- Three thousand, one hundred and forty-two.
- Four thousand, five hundred and twenty-three.
- Nine thousand, nine hundred and three.
- Five thousand, six hundred and twenty-two.
- Two thousand, two hundred and twenty-five.
- Six thousand, two hundred and fifty-one.
- Eight thousand, six hundred and two.
- Two thousand, five hundred and forty-three.

- Nine thousand, one hundred and fifteen.
- One thousand and two.
- Seven thousand, nine hundred and fifty-four.
- Four thousand, two hundred and one.
- Nine thousand and one.
- Two thousand, three hundred and forty-four.
- Seven thousand and five.
- Two thousand and twenty.
- Four thousand, one hundred and twenty.
- Eight thousand, three hundred and sixty.

Exercise 1.3A

- Two hundreds, four tens and one one.
- One hundred, seven tens and three ones.
- Three hundreds, one ten and one five.
- One hundred, seven tens and two ones.
- Two hundreds and five tens.
- Three hundreds, two tens and two ones.
- Five hundreds, two tens and one one.
- Six hundreds, one ten and two ones.
- Two hundreds, seven tens and three ones.
- One hundred, seven tens and one one.
- Three hundreds and one one.
- Four hundreds.
- Two tens and nine ones.
- Nine tens and one one.
- One hundred and three ones.

Exercise 1.3B

- | | |
|---------------------------|---------------------------|
| 1. $1000 + 800 + 20 + 7$ | 2. $9000 + 200 + 80 + 3$ |
| 3. $7000 + 700 + 20 + 2$ | 4. $1000 + 40 + 8$ |
| 5. $9000 + 1$ | 6. $3000 + 400 + 20 + 2$ |
| 7. $5000 + 20 + 1$ | 8. $6000 + 700 + 90 + 9$ |
| 9. $4000 + 300$ | 10. $7000 + 10$ |
| 11. $8000 + 20 + 2$ | 12. $6000 + 500 + 40 + 3$ |
| 13. $7000 + 800 + 90 + 7$ | 14. $3000 + 900$ |
| 15. $1000 + 200 + 20$ | 16. $5000 + 600 + 60 + 7$ |
| 17. $8000 + 800 + 3$ | 18. 2000 |
| 19. $3000 + 300 + 20 + 2$ | 20. $1000 + 400$ |

Exercise 1.4A

- | | |
|-----------------------|------------------------|
| 1. 456, 622, 644, 717 | 2. 800, 808, 811, 818 |
| 3. 677, 721, 887, 919 | 4. 455, 545, 554, 555 |
| 5. 123, 231, 321, 330 | 6. 413, 433, 441, 442 |
| 7. 67, 98, 100, 261 | 8. 14, 41, 140, 142 |
| 9. 870, 891, 919, 988 | 10. 622, 637, 701, 791 |
| 11. 71, 671, 710, 711 | 12. 696, 966, 969, 996 |

Exercise 1.4B

- 6214, 6222, 6342, 7117
- 9111, 9118, 9181, 9800
- 1712, 1721, 1887, 1999
- 5445, 4554, 5455, 5545
- 2113, 2123, 2231, 2330
- 4441, 4533, 4534, 4542
- 1000, 1019, 1216, 1261
- 142, 1444, 4141, 4414
- 8870, 8890, 8891, 8919
- 7632, 7637, 7701, 7791
- 6235, 6322, 6325, 6352
- 3485, 3584, 3845, 3854

Exercise 1.5

1.1

- (a) 1899 (b) 3706

1.2

- (a) One thousand, and twenty-five.
(b) Nine thousand, two hundred and seventy-two.
(c) Three thousand, one hundred and forty-two.

1.3A

- (a) Two hundreds, three tens and four ones.
(b) One hundred, five tens and two ones.

1.3B

- (a) $300 + 20 + 7$ (b) $4000 + 100 + 50 + 3$
(c) $6000 + 20 + 2$

1.4

- (a) 117, 202, 563, 644 (b) 134, 341, 1403, 3004
(c) 2054, 4025, 5042, 5204

Chapter 2

Exercise 2.1A

1.

- (a) 30 (b) 60 (c) 10
(d) 90 (e) 60 (f) 70

2.

- (a) 10 and 20 (b) 40 and 50 (c) 30 and 40
(d) 50 and 60 (e) 90 and 100 (f) 0 and 10
(g) 60 and 70 (h) 30 and 40 (i) 10 and 20
(j) 70 and 80 (k) 130 and 140 (l) 220 and 230

3.

- (a) 10 (b) 40 (c) 40 (d) 60
(e) 90 (f) 0 (g) 70 (h) 40
(i) 20 (j) 70 (k) 140 (l) 230

Exercise 2.1B

1.

- (a) 500 (b) 400 (c) 100
(d) 900 (e) 500 (f) 900

2.

- (a) 400 and 500 (b) 100 and 200 (c) 700 and 800
(d) 900 and 1000 (e) 400 and 500 (f) 100 and 200
(g) 800 and 900 (h) 600 and 700 (i) 900 and 1000

(j) 2100 and 2200

(k) 4200 and 4300

(l) 8000 and 8100

3.

- (a) 500 (b) 100 (c) 700 (d) 1000
(e) 500 (f) 100 (g) 900 (h) 700
(i) 900 (j) 2200 (k) 4300 (l) 8000

Exercise 2.2

1.

- (a) 9000 (b) 1000 (c) 8000
(d) 7000 (e) 1000 (f) 5000

2.

- (a) 2000 and 3000 (b) 3000 and 4000
(c) 8000 and 9000 (d) 9000 and 10 000
(e) 6000 and 7000 (f) 5000 and 6000
(g) 1000 and 2000 (h) 0 and 1000
(i) 0 and 1000 (j) 6000 and 7000
(k) 8000 and 9000 (l) 9000 and 10 000

3.

- (a) 2000 (b) 4000 (c) 9000 (d) 9000
(e) 6000 (f) 5000 (g) 2000 (h) 0
(i) 1000 (j) 6000 (k) 8000 (l) 10 000

Exercise 2.3

1.

- (a) 20 000 (b) 20 000 (c) 60 000
(d) 20 000 (e) 70 000 (f) 10 000

2.

- (a) 10 000 and 20 000 (b) 30 000 and 40 000
(c) 80 000 and 90 000 (d) 70 000 and 80 000
(e) 60 000 and 70 000 (f) 10 000 and 20 000
(g) 20 000 and 30 000 (h) 50 000 and 60 000
(i) 90 000 and 100 000 (j) 0 and 10 000
(k) 0 and 10 000 (l) 80 000 and 90 000

3.

- (a) 20 000 (b) 30 000 (c) 90 000 (d) 70 000
(e) 60 000 (f) 10 000 (g) 20 000 (h) 60 000
(i) 100 000 (j) 0 (k) 10 000 (l) 90 000

Exercise 2.4

1.

- (a) £130 (b) £70 (c) £160 (d) £100
(e) £40 (f) £110 (g) £110 (h) £150
(i) £150 (j) £100 (k) £120 (l) £80

2.

- (a) £20 (b) £50 (c) £60 (d) £20
(e) £10 (f) £30 (g) £60 (h) £10
(i) £20 (j) £20 (k) £20 (l) £40

Chapter 3

Exercise 3.1A

1.
(a) 21 (b) 29 (c) 96 (d) 41 (e) 60
(f) 37 (g) 42 (h) 64 (i) 51 (j) 79
(k) 78 (l) 85 (m) 53 (n) 34 (o) 88
2.
(a) 20 (b) 26 (c) 101 (d) 15 (e) 89
(f) 35 (g) 44 (h) 72 (i) 91 (j) 78
(k) 34 (l) 65 (m) 97 (n) 21 (o) 58
3.
(a) 41 (b) 47 (c) 82 (d) 50 (e) 16
(f) 86 (g) 55 (h) 88 (i) 102 (j) 81
(k) 73 (l) 96 (m) 18 (n) 23 (o) 99

Exercise 3.1B

1.
(a) 37 (b) 55 (c) 82 (d) 12 (e) 36
(f) 43 (g) 58 (h) 70 (i) 67 (j) 35
(k) 19 (l) 11 (m) 89 (n) 50 (o) 74
2.
(a) 24 (b) 60 (c) 95 (d) 79 (e) 53
(f) 39 (g) 28 (h) 16 (i) 25 (j) 62
(k) 48 (l) 69 (m) 21 (n) 45 (o) 32
3.
(a) 23 (b) 29 (c) 64 (d) 68 (e) 88
(f) 57 (g) 37 (h) 50 (i) 84 (j) 43
(k) 55 (l) 76 (m) 92 (n) 25 (o) 31

Exercise 3.1C

1. 50 2. 18 3. 63 4. 95 5. 38
6. 82 7. 39 8. 21 9. 69 10. 90
11. 2 12. 2 13. 4 14. 3 15. 4
16. 4 17. 3 18. 3 19. 2 20. 3

Exercise 3.1D

1.
(a) 49 (b) 97 (c) 20 (d) 43 (e) 61
(f) 42 (g) 25 (h) 68 (i) 52 (j) 84
(k) 41 (l) 92 (m) 56 (n) 38 (o) 91
2.
(a) 20 (b) 88 (c) 43 (d) 56 (e) 72
(f) 41 (g) 28 (h) 39 (i) 51 (j) 105
(k) 44 (l) 87 (m) 64 (n) 19 (o) 90
3.
(a) 22 (b) 93 (c) 39 (d) 57 (e) 76
(f) 46 (g) 33 (h) 42 (i) 48 (j) 105

- (k) 95 (l) 69 (m) 64 (n) 20 (o) 91

Exercise 3.1E

1.
(a) 29 (b) 7 (c) 70 (d) 23 (e) 41
(f) 22 (g) 35 (h) 78 (i) 92 (j) 64
(k) 91 (l) 52 (m) 26 (n) 8 (o) 71
2.
(a) 88 (b) 16 (c) 11 (d) 64 (e) 50
(f) 69 (g) 45 (h) 77 (i) 59 (j) 43
(k) 62 (l) 41 (m) 32 (n) 17 (o) 8
3.
(a) 28 (b) 39 (c) 85 (d) 13 (e) 52
(f) 22 (g) 49 (h) 8 (i) 64 (j) 81
(k) 71 (l) 75 (m) 30 (n) 36 (o) 87

Exercise 3.1F

1. 17 2. 28 3. 65 4. 91 5. 25
6. 44 7. 28 8. 29 9. 66 10. 82
11. 7 12. 7 13. 7 14. 5 15. 5
16. 7 17. 6 18. 6 19. 7 20. 6

Exercise 3.1G

1.
(a) 50 (b) 104 (c) 20 (d) 44 (e) 59
(f) 47 (g) 33 (h) 77 (i) 51 (j) 85
(k) 42 (l) 96 (m) 63 (n) 46 (o) 91
2.
(a) 21 (b) 75 (c) 41 (d) 35 (e) 30
(f) 68 (g) 84 (h) 48 (i) 62 (j) 96
(k) 83 (l) 57 (m) 104 (n) 37 (o) 102

Exercise 3.1H

1.
(a) 24 (b) 78 (c) 34 (d) 48 (e) 63
(f) 11 (g) 57 (h) 91 (i) 75 (j) 39
(k) 46 (l) 70 (m) 27 (n) 60 (o) 85
2.
(a) 33 (b) 77 (c) 43 (d) 7 (e) 52
(f) 70 (g) 26 (h) 90 (i) 64 (j) 38
(k) 55 (l) 9 (m) 16 (n) 59 (o) 67

Exercise 3.1I

1. 17 2. 34 3. 33 4. 106 5. 42
6. 42 7. 12 8. 84 9. 82 10. 99
11. 9 12. 8 13. 8 14. 9 15. 8
16. 8 17. 7 18. 9 19. 9 20. 9
21. 6 22. 7 23. 8 24. 3 25. 7

Exercise 3.2A

1. 31 2. 103 3. 54 4. 67 5. 85
 6. 154 7. 79 8. 117 9. 103 10. 103
 11. 97 12. 147 13. 101 14. 86 15. 102
 16. 152 17. 106 18. 75 19. 107 20. 131

Exercise 3.2B

1. 631 2. 533 3. 826 4. 1277
 5. 689 6. 1041 7. 576 8. 619
 9. 1388 10. 763 11. 625 12. 718
 13. 1116 14. 717 15. 862 16. 1346
 17. 373 18. 656 19. 838 20. 1106

Exercise 3.2C

1. 5271 2. 7733 3. 9834 4. 9123
 5. 11 389 6. 8711 7. 4776 8. 6149
 9. 8388 10. 6457 11. 6819 12. 4428
 13. 3316 14. 9817 15. 7662 16. 8146
 17. 3033 18. 9456 19. 6177 20. 8431

Exercise 3.3A

1.
 (a) 45 (b) 74 (c) 81 (d) 67
 (e) 94 (f) 87 (g) 97 (h) 70
 (i) 50 (j) 98 (k) 99 (l) 52
2.
 (a) 28 (b) 82 (c) 42 (d) 45
 (e) 85 (f) 84 (g) 77 (h) 85
 (i) 92 (j) 81 (k) 77 (l) 125
 (m) 98 (n) 56 (o) 80 (p) 97
 (q) 85 (r) 75 (s) 82 (t) 88

Exercise 3.3B

1.
 (a) 412 (b) 565 (c) 515 (d) 689
 (e) 942 (f) 987 (g) 877 (h) 686
 (i) 569 (j) 990 (k) 941 (l) 562
2.
 (a) 644 (b) 387 (c) 693 (d) 475
 (e) 855 (f) 900 (g) 237 (h) 922
 (i) 927 (j) 737 (k) 632 (l) 1257
 (m) 789 (n) 918 (o) 872 (p) 982
 (q) 985 (r) 632 (s) 698 (t) 991

Exercise 3.3C

1.
 (a) 8207 (b) 9711 (c) 3845 (d) 9932
 (e) 8642 (f) 9747 (g) 3451 (h) 4386
 (i) 4247 (j) 10 630 (k) 9351 (l) 3362

2.

- (a) 6859 (b) 4767 (c) 10 194 (d) 5405
 (e) 8566 (f) 8620 (g) 3347 (h) 9754
 (i) 8873 (j) 9620 (k) 7783 (l) 9995
 (m) 7002 (n) 7618 (o) 8975 (p) 9846
 (q) 10 132 (r) 9233 (s) 10 194 (t) 7271

Exercise 3.4A

1. 2 2. 67 3. 20 4. 3 5. 22
 6. 14 7. 7 8. 29 9. 19 10. 31
 11. 16 12. 14 13. 5 14. 49 15. 24
 16. 42 17. 25 18. 47 19. 4 20. 44

Exercise 3.4B

1. 43 2. 49 3. 184 4. 135 5. 147
 6. 141 7. 468 8. 163 9. 186 10. 151
 11. 178 12. 120 13. 738 14. 381 15. 384
 16. 636 17. 589 18. 368 19. 296 20. 631

Exercise 3.4C

1. 4973 2. 4149 3. 6176 4. 4881 5. 4847
 6. 1211 7. 5968 8. 3393 9. 186 10. 857
 11. 985 12. 4460 13. 747 14. 5775 15. 1184
 16. 1436 17. 6189 18. 168 19. 5467 20. 1753

Exercise 3.5A

1. 68 2. 13 3. 44 4. 43 5. 6
 6. 36 7. 17 8. 17 9. 7 10. 35
 11. 15 12. 35 13. 72 14. 40 15. 13
 16. 38 17. 6 18. 46 19. 26 20. 39

Exercise 3.5B

1. 363 2. 539 3. 125 4. 16 5. 163
 6. 172 7. 227 8. 33 9. 172 10. 293
 11. 189 12. 220 13. 350 14. 400 15. 355
 16. 696 17. 389 18. 68 19. 158 20. 360

Exercise 3.5C

1. 4493 2. 6999 3. 2596 4. 2063
 5. 2189 6. 6653 7. 4328 8. 4016
 9. 5599 10. 3930 11. 1485 12. 4064
 13. 164 14. 6963 15. 434 16. 642
 17. 6156 18. 107 19. 5444 20. 646

Exercise 3.6A

1. 377 2. 596 3. 404 4. 259 5. 460
 6. 75 7. 227 8. 123 9. 156 10. 82
 11. 262 12. 443 13. 393 14. 162 15. 125
 16. 118 17. 131 18. 361 19. 302 20. 224

Exercise 3.6B

1. 294 2. 389 3. 249 4. 355 5. 450
6. 163 7. 157 8. 109 9. 223 10. 274
11. 179 12. 420 13. 78 14. 185 15. 193
16. 200 17. 211 18. 294 19. 249 20. 319

Exercise 3.7

1. 80 2. 126 3. 137 4. 163 5. 107
6. 131 7. 106 8. 127 9. 41 10. 64
11. 27 12. 41 13. 2 14. 68 15. 6
16. 11 17. 62 18. 51 19. 54 20. 9

Exercise 3.8

3.1

- (a) 50 (b) 91 (c) 84 (d) 92
(e) 23 (f) 45

3.2-3

- (a) 82 (b) 575 (c) 4554

3.4-5

- (a) 47 (b) 367 (c) 3505

3.7

- (a) 136 (b) 108 (c) 174 (d) 66
(e) 15 (f) 19

Chapter 4

Exercise 4.1A

1.

- (a) 10 (b) 12 (c) 16 (d) 18 (e) 18
(f) 15 (g) 14 (h) 27 (i) 4 (j) 6
(k) 30 (l) 6 (m) 20 (n) 8 (o) 21
(p) 12 (q) 9 (r) 24

2.

- (a) 15 (b) 8 (c) 6 (d) 24 (e) 24
(f) 20 (g) 21 (h) 36 (i) 12 (j) 9
(k) 12 (l) 32 (m) 27 (n) 33 (o) 28
(p) 18 (q) 16 (r) 3

3.

- (a) 12 (b) 8 (c) 30 (d) 16 (e) 4
(f) 12 (g) 14 (h) 40 (i) 16 (j) 9
(k) 12 (l) 44 (m) 18 (n) 27 (o) 2
(p) 24 (q) 20 (r) 22

Exercise 4.1B

1.

- (a) 25 (b) 40 (c) 40 (d) 45 (e) 60
(f) 50 (g) 35 (h) 90 (i) 110 (j) 50
(k) 100 (l) 120 (m) 20 (n) 30 (o) 70

- (p) 55 (q) 60 (r) 20

2.

- (a) 35 (b) 80 (c) 30 (d) 40 (e) 60
(f) 50 (g) 45 (h) 90 (i) 50 (j) 25
(k) 110 (l) 30 (m) 55 (n) 10 (o) 10
(p) 15 (q) 40 (r) 5

Exercise 4.1C

1.

- (a) 36 (b) 28 (c) 48 (d) 54 (e) 42
(f) 56 (g) 42 (h) 63 (i) 30 (j) 60
(k) 49 (l) 77 (m) 18 (n) 66 (o) 7
(p) 6 (q) 14 (r) 12

2.

- (a) 49 (b) 35 (c) 56 (d) 21 (e) 36
(f) 42 (g) 48 (h) 54 (i) 28 (j) 70
(k) 66 (l) 72 (m) 24 (n) 14 (o) 6
(p) 63 (q) 12 (r) 84

Exercise 4.1D

1.

- (a) 81 (b) 32 (c) 72 (d) 63 (e) 72
(f) 56 (g) 88 (h) 48 (i) 45 (j) 90
(k) 64 (l) 54 (m) 36 (n) 99 (o) 8
(p) 9 (q) 16 (r) 18

2.

- (a) 9 (b) 24 (c) 72 (d) 27 (e) 8
(f) 96 (g) 48 (h) 72 (i) 36 (j) 40
(k) 64 (l) 56 (m) 32 (n) 18 (o) 80
(p) 81 (q) 108 (r) 63

Exercise 4.1E

1. 7 2. 3 3. 4 4. 3 5. 4
6. 8 7. 6 8. 9 9. 6 10. 6
11. 5 12. 6 13. 6 14. 8 15. 5
16. 8 17. 9 18. 12 19. 11 20. 12

Exercise 4.2

1.

- (a) 60 (b) 120 (c) 210 (d) 430
(e) 180 (f) 530 (g) 8900 (h) 3430
(i) 1060 (j) 920 (k) 9910 (l) 6420
(m) 490 (n) 8770 (o) 4360 (p) 3930
(q) 300 (r) 4560

2.

- (a) 600 (b) 900 (c) 1100 (d) 800
(e) 1500 (f) 9800 (g) 3000 (h) 4300
(i) 3700 (j) 2800 (k) 6900 (l) 2600

(m) 4100 (n) 3400 (o) 9200 (p) 7900

(q) 5300 (r) 7400

3.

(a) 2000 (b) 9000 (c) 14 000 (d) 6000

(e) 12 000 (f) 57 000 (g) 10 000 (h) 25 000

(i) 42 000 (j) 38 000 (k) 29 000 (l) 51 000

(m) 83 000 (n) 34 000 (o) 92 000 (p) 49 000

(q) 63 000 (r) 71 000

Exercise 4.3A

1. 240 2. 350 3. 540 4. 320 5. 560

6. 480 7. 810 8. 880 9. 220 10. 200

11. 270 12. 160 13. 210 14. 360 15. 240

Exercise 4.3B

1. 4000 2. 1800 3. 2000 4. 8400 5. 5400

6. 4400 7. 2400 8. 2400 9. 1500 10. 6400

11. 6300 12. 3500 13. 4800 14. 6600 15. 3500

Exercise 4.3C

1. 48 000 2. 45 000 3. 48 000 4. 35 000

5. 54 000 6. 10 000 7. 9 000 8. 55 000

9. 49 000 10. 77 000 11. 63 000 12. 88 000

13. 80 000 14. 64 000 15. 48 000

Exercise 4.4A

1.

(a) 86 (b) 168 (c) 288 (d) 330 (e) 60

(f) 192 (g) 76 (h) 82 (i) 52 (j) 96

(k) 368 (l) 96 (m) 68 (n) 94 (o) 159

(p) 108 (q) 183 (r) 184

2.

(a) 312 (b) 245 (c) 198 (d) 256 (e) 210

(f) 189 (g) 287 (h) 441 (i) 574 (j) 464

(k) 496 (l) 135 (m) 488 (n) 756 (o) 198

(p) 114 (q) 387 (r) 126

Exercise 4.4B

1.

(a) 108 (b) 267 (c) 368 (d) 305 (e) 164

(f) 114 (g) 306 (h) 118 (i) 104 (j) 183

(k) 356 (l) 88 (m) 198 (n) 207 (o) 252

(p) 117 (q) 156 (r) 236

2.

(a) 426 (b) 413 (c) 546 (d) 176 (e) 294

(f) 522 (g) 224 (h) 287 (i) 644 (j) 304

(k) 736 (l) 252 (m) 248 (n) 261 (o) 738

(p) 414 (q) 549 (r) 558

Exercise 4.5A

1.

(a) 90 (b) 78 (c) 201 (d) 276 (e) 216

(f) 98 (g) 126 (h) 69 (i) 285 (j) 36

(k) 92 (l) 176 (m) 82 (n) 117 (o) 130

(p) 297 (q) 32 (r) 60 (s) 70 (t) 252

2.

(a) 280 (b) 70 (c) 92 (d) 344 (e) 390

(f) 195 (g) 212 (h) 360 (i) 495 (j) 156

(k) 240 (l) 316 (m) 176 (n) 160 (o) 305

(p) 410 (q) 125 (r) 95 (s) 132 (t) 320

3.

(a) 570 (b) 252 (c) 399 (d) 72 (e) 492

(f) 174 (g) 301 (h) 231 (i) 525 (j) 552

(k) 392 (l) 288 (m) 246 (n) 553 (o) 665

(p) 623 (q) 336 (r) 360 (s) 510 (t) 378

4.

(a) 352 (b) 693 (c) 504 (d) 891 (e) 459

(f) 765 (g) 312 (h) 184 (i) 495 (j) 256

(k) 456 (l) 828 (m) 368 (n) 304 (o) 776

(p) 520 (q) 126 (r) 279 (s) 270 (t) 783

Exercise 4.5B

1.

(a) 92 (b) 171 (c) 392 (d) 205 (e) 220

(f) 261 (g) 260 (h) 62 (i) 48 (j) 198

(k) 320 (l) 256 (m) 86 (n) 154 (o) 252

(p) 117 (q) 255 (r) 144

2.

(a) 372 (b) 315 (c) 444 (d) 224 (e) 510

(f) 679 (g) 217 (h) 308 (i) 168 (j) 504

(k) 432 (l) 180 (m) 664 (n) 126 (o) 801

(p) 342 (q) 585 (r) 702

Exercise 4.5C

1.

(a) 1338 (b) 3765 (c) 3248 (d) 1032

(e) 2305 (f) 2697 (g) 1209 (h) 3925

(i) 916 (j) 1130 (k) 2916 (l) 471

(m) 378 (n) 1480 (o) 3310 (p) 2415

2.

(a) 636 (b) 4144 (c) 6488 (d) 2916

(e) 3549 (f) 4740 (g) 3528 (h) 5544

(i) 2664 (j) 3420 (k) 5352 (l) 948

(m) 1332 (n) 2688 (o) 4396 (p) 4744

Exercise 4.5D

1.
(a) 1592 (b) 1761 (c) 3712 (d) 2055
(e) 1780 (f) 2649 (g) 1960 (h) 698
(i) 1132 (j) 1881 (k) 3564 (l) 2568
(m) 988 (n) 1154 (o) 2472 (p) 1179
(q) 2550 (r) 1424
2.
(a) 3912 (b) 3255 (c) 5898 (d) 2256
(e) 2070 (f) 6699 (g) 2170 (h) 2961
(i) 3444 (j) 5104 (k) 7432 (l) 1845
(m) 6640 (n) 2106 (o) 8028 (p) 3474
(q) 5877 (r) 6696

Exercise 4.6A

1.
(a) 5 (b) 5 (c) 2 (d) 8 (e) 10
(f) 7 (g) 6 (h) 4 (i) 7 (j) 3
(k) 3 (l) 2 (m) 9 (n) 10 (o) 6
(p) 11 (q) 1 (r) 8
2.
(a) 2 (b) 3 (c) 4 (d) 5 (e) 1
(f) 7 (g) 3 (h) 6 (i) 4 (j) 8
(k) 10 (l) 6 (m) 10 (n) 5 (o) 13
(p) 7 (q) 9 (r) 9
3.
(a) 2 (b) 3 (c) 3 (d) 6 (e) 6
(f) 2 (g) 1 (h) 8 (i) 4 (j) 9
(k) 8 (l) 5 (m) 7 (n) 5 (o) 9
(p) 1 (q) 7 (r) 4
4.
(a) 2 (b) 6 (c) 8 (d) 1 (e) 5
(f) 3 (g) 9 (h) 7 (i) 3 (j) 7
(k) 1 (l) 9 (m) 11 (n) 4 (o) 2
(p) 5 (q) 8 (r) 6
5.
(a) 9 (b) 8 (c) 7 (d) 9 (e) 4
(f) 3 (g) 1 (h) 6 (i) 2 (j) 2
(k) 1 (l) 8 (m) 5 (n) 3 (o) 6
(p) 10 (q) 5 (r) 4
6.
(a) 15 (b) 18 (c) 32 (d) 63 (e) 24
(f) 35 (g) 16 (h) 45 (i) 21 (j) 72
(k) 8 (l) 4 (m) 5 (n) 9 (o) 8
(p) 12 (q) 9 (r) 11 (s) 7 (t) 5

Exercise 4.6B

1.
 $5 \times 6 = 30$ $6 \times 5 = 30$ $30 \div 5 = 6$ $30 \div 6 = 5$
2.
 $3 \times 8 = 24$ $8 \times 3 = 24$ $24 \div 3 = 8$ $24 \div 8 = 3$
3.
 $7 \times 6 = 42$ $6 \times 7 = 42$ $42 \div 7 = 6$ $42 \div 6 = 7$
4.
 $9 \times 6 = 54$ $6 \times 9 = 54$ $54 \div 6 = 9$ $54 \div 9 = 6$
5.
 $2 \times 7 = 14$ $7 \times 2 = 14$ $14 \div 2 = 7$ $14 \div 7 = 2$
6.
 $4 \times 9 = 36$ $9 \times 4 = 36$ $36 \div 4 = 9$ $36 \div 9 = 4$
7.
 $5 \times 3 = 15$ $3 \times 5 = 15$ $15 \div 5 = 3$ $15 \div 3 = 5$
8.
 $4 \times 7 = 28$ $7 \times 4 = 28$ $28 \div 4 = 7$ $28 \div 7 = 4$
9.
 $9 \times 7 = 63$ $7 \times 9 = 63$ $63 \div 7 = 9$ $63 \div 9 = 7$
10.
 $8 \times 7 = 56$ $7 \times 8 = 56$ $56 \div 7 = 8$ $56 \div 8 = 7$
11.
 $6 \times 8 = 48$ $8 \times 6 = 48$ $48 \div 8 = 6$ $48 \div 6 = 8$
12.
 $9 \times 6 = 54$ $6 \times 9 = 54$ $54 \div 6 = 9$ $54 \div 9 = 6$

Exercise 4.7

1.
(a) 16 (b) 94 (c) 78 (d) 451 (e) 25
(f) 540 (g) 190 (h) 890 (i) 106 (j) 120
(k) 91 (l) 642 (m) 29 (n) 857 (o) 328
(p) 323 (q) 30 (r) 357
2.
(a) 4 (b) 35 (c) 68 (d) 280 (e) 150
(f) 86 (g) 604 (h) 43 (i) 92 (j) 387
(k) 33 (l) 15 (m) 203 (n) 69 (o) 91
3.
(a) 2 (b) 7 (c) 30 (d) 12 (e) 70
(f) 58 (g) 10 (h) 26 (i) 44 (j) 35
(k) 21 (l) 87 (m) 50 (n) 14 (o) 92
(p) 39 (q) 63 (r) 120 (s) 90 (t) 400

Exercise 4.8A

1. 3 2. 7 3. 7 4. 12 5. 3
6. 80 7. 80 8. 60 9. 80 10. 9
11. 120 12. 70 13. 40 14. 80 15. 90

Exercise 4.8B

1. 3 2. 6 3. 8 4. 6
 5. 120 6. 80 7. 120 8. 8
 9. 80 10. 90 11. 50 12. 400

Exercise 4.8C

1. 3 2. 11 3. 6 4. 9
 5. 12 6. 8 7. 9 8. 8
 9. 20 10. 50 11. 70 12. 60

Exercise 4.9

1.
 (a) 26 (b) 22 (c) 16 (d) 16 (e) 21
 (f) 14 (g) 43 (h) 15 (i) 14 (j) 14
 (k) 36 (l) 15 (m) 18 (n) 22 (o) 18
 (p) 18 (q) 21 (r) 22
2.
 (a) 12 (b) 14 (c) 13 (d) 13 (e) 14
 (f) 15 (g) 18 (h) 11 (i) 16 (j) 12
 (k) 19 (l) 13 (m) 11 (n) 17 (o) 12
 (p) 23 (q) 26 (r) 24

Exercise 4.10A

1.
 (a) 60 (b) 50 (c) 210 (d) 80 (e) 111
 (f) 21 (g) 326 (h) 437 (i) 73 (j) 332
 (k) 322 (l) 57 (m) 245 (n) 43 (o) 23
 (p) 18 (q) 298 (r) 81
2.
 (a) 96 (b) 21 (c) 14 (d) 34 (e) 70
 (f) 88 (g) 25 (h) 36 (i) 58 (j) 27
 (k) 33 (l) 44 (m) 53 (n) 99 (o) 92
 (p) 77 (q) 57 (r) 46
3.
 (a) 13 (b) 99 (c) 65 (d) 89 (e) 54
 (f) 96 (g) 24 (h) 71 (i) 55 (j) 63
 (k) 14 (l) 34 (m) 28 (n) 87 (o) 44
 (p) 26 (q) 46 (r) 81
4.
 (a) 36 (b) 22 (c) 14 (d) 54 (e) 41
 (f) 12 (g) 78 (h) 31 (i) 14 (j) 36
 (k) 78 (l) 52 (m) 44 (n) 66 (o) 97
 (p) 96 (q) 33 (r) 55

Exercise 4.10B

1.
 (a) 329 (b) 897 (c) 477 (d) 698
 (e) 631 (f) 741 (g) 963 (h) 450
 (i) 852 (j) 862 (k) 4056 (l) 3025
 (m) 1369 (n) 2398 (o) 3333 (p) 4677
 (q) 1488 (r) 3446
2.
 (a) 1245 (b) 1114 (c) 1036 (d) 1045
 (e) 965 (f) 452 (g) 145 (h) 635
 (i) 456 (j) 638 (k) 477 (l) 1026
 (m) 879 (n) 1306 (o) 712 (p) 963
 (q) 411 (r) 865

Exercise 4.11A

1. 84 2. 100 3. 9 4. 12 5. 84
 6. 95 7. 14 8. 8 9. 27 10. 92
 11. 8 12. 15 13. 54 14. 8 15. 132
 16. 96 17. 36 18. 13 19. 102 20. 21

Exercise 4.11B

1. 68 2. 12 3. 90 4. 14 5. 96
 6. 7 7. 60 8. 16 9. 27 10. 57
 11. 13 12. 126 13. 32 14. 96 15. 18
 16. 9 17. 52 18. 25 19. 112 20. 14

Exercise 4.12

- 4.1
 (a) 63 (b) 18 (c) 32
 (d) 42 (e) 15 (f) 54
- 4.2
 (a) 150 (b) 69 800 (c) 324 000
- 4.3
 (a) 100 (b) 5600 (c) 72 000
- 4.4
 (a) 42 (b) 448 (c) 185
- 4.5
 (a) 485 (b) 1656 (c) 2394
- 4.6
 (a) 5 (b) 9 (c) 8
 (d) 7 (e) 7 (f) 3
- 4.7
 (a) 257 (b) 441 (c) 71
- 4.8
 (a) 2 (b) 6 (c) 6
- 4.9
 (a) 9 (b) 18 (c) 27
- 4.10
 (a) 26 (b) 32 (c) 45

Chapter 5

Exercise 5.1A

- 5, 10, 15, 20, 25, 30, 35, 40
- 2, 4, 6, 8, 10, 12, 14, 16
- 9, 18, 27, 36, 45, 54, 63, 72
- 7, 14, 21, 28, 35, 42, 49, 56
- 6, 12, 18, 24, 30, 36, 42, 48
- 10, 20, 30, 40, 50, 60, 70, 80
- 3, 6, 9, 12, 15, 18, 21, 24
- 8, 16, 24, 32, 40, 48, 56, 64
- 4, 8, 12, 16, 20, 24, 28, 32
- 1, 2, 3, 4, 5, 6, 7, 8

Exercise 5.1B

- 15, 30, 45, 60, 75, 90, 105, 120
- 30, 60, 90, 120, 150, 180, 210, 240
- 45, 90, 135, 180, 225, 270, 315, 360
- 23, 46, 69, 92, 115, 138, 161, 184
- 50, 100, 150, 200, 250, 300, 350, 400
- 70, 140, 210, 280, 350, 420, 490, 560
- 88, 176, 264, 352, 440, 528, 616, 704
- 92, 184, 276, 368, 460, 552, 644, 736
- 62, 124, 186, 248, 310, 372, 434, 496
- 11, 22, 33, 44, 55, 66, 77, 88

Exercise 5.2

- 1, 2, 4, 5, 10, 20
- 1, 2, 3, 4, 9, 12, 18, 36
- 1, 2, 4, 8
- 1, 2, 4, 8, 16
- 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
- 1, 2, 7, 14
- 1, 3, 5, 15
- 1, 5, 25
- 1, 2, 4, 8, 16, 32
- 1, 3, 7, 9, 21, 63
- 1, 17
- 1, 3, 5, 9, 15, 45
- 1, 2, 3, 6
- 1, 5, 7, 35
- 1, 2, 3, 6, 9, 18, 27, 54
- 1, 3, 9, 27, 81
- 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
- 1, 2, 4
- 1, 2, 11, 22
- 1, 2, 4, 7, 14, 28

Exercise 5.3

5.1

- 9, 18, 27, 36, 45, 54, 63, 72
- 5, 10, 15, 20, 25, 30, 35, 40
- 6, 12, 18, 24, 30, 36, 42, 48
- 2, 4, 6, 8, 10, 12, 14, 16
- 7, 14, 21, 28, 35, 42, 49, 56
- 3, 6, 9, 12, 15, 18, 21, 24

5.2

- 1, 2, 7, 14
- 1, 5, 25

(c) 1, 31

(e) 1, 7

(d) 1, 2, 4, 5, 8, 10, 20, 40

(f) 1, 3, 5, 15

Chapter 6

Exercise 6.1A

- $\frac{5}{9}$
- $\frac{2}{5}$
- $\frac{1}{6}$
- $\frac{1}{2}$
- $\frac{3}{8}$
- $\frac{3}{4}$
- $\frac{4}{10}$
- $\frac{2}{7}$

Exercise 6.1B

- $\frac{3}{4}$
- $\frac{4}{12}$
- $\frac{1}{10}$
- $\frac{4}{6}$
- $\frac{6}{9}$
- $\frac{2}{12}$
- $\frac{2}{6}$
- $\frac{3}{8}$
- $\frac{3}{8}$
- $\frac{6}{10}$
- $\frac{4}{12}$
- $\frac{7}{10}$
- $\frac{6}{15}$
- $\frac{10}{18}$

Exercise 6.1C

- Any 1 box coloured
 - Any 1 box coloured
 - Any 1 box coloured
 - Any 2 boxes coloured
 - Any 3 boxes coloured
 - Any 2 boxes coloured
 - Any 1 box coloured
 - Any 5 boxes coloured
 - Any 2 boxes coloured
 - Any 4 boxes coloured
- Any 5 boxes coloured
 - Any 7 boxes coloured
 - Any 5 boxes coloured
 - Any 3 boxes coloured
 - Any 7 boxes coloured
 - Any 11 boxes coloured

Exercise 6.2A (possible answers)

- $\frac{2}{4}$
- $\frac{2}{8}$
- $\frac{3}{6}$
- $\frac{2}{12}$
- $\frac{2}{10}$
- $\frac{4}{10}$
- $\frac{4}{8}$
- $\frac{4}{6}$
- $\frac{4}{12}$
- $\frac{1}{4}$
- $\frac{6}{8}$
- $\frac{6}{10}$
- $\frac{6}{12}$
- $\frac{8}{12}$
- $\frac{8}{10}$

Exercise 6.2B (possible answers)

- $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}$
 - $\frac{2}{10}, \frac{3}{15}, \frac{4}{20}$
 - $\frac{2}{12}, \frac{3}{18}, \frac{4}{24}$
 - $\frac{2}{8}, \frac{3}{12}, \frac{4}{16}$
 - $\frac{2}{14}, \frac{3}{21}, \frac{4}{28}$
 - $\frac{2}{16}, \frac{3}{24}, \frac{4}{32}$
 - $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}$
 - $\frac{2}{20}, \frac{3}{30}, \frac{4}{40}$
 - $\frac{2}{18}, \frac{3}{27}, \frac{4}{36}$
- $\frac{4}{6}, \frac{6}{9}, \frac{10}{15}$
 - $\frac{4}{8}, \frac{6}{12}, \frac{8}{16}$
 - $\frac{6}{8}, \frac{9}{12}, \frac{12}{16}$
 - $\frac{6}{10}, \frac{9}{15}, \frac{12}{20}$
 - $\frac{6}{12}, \frac{9}{18}, \frac{12}{24}$
 - $\frac{8}{12}, \frac{12}{18}, \frac{16}{24}$
 - $\frac{8}{12}, \frac{12}{18}, \frac{16}{24}$
 - $\frac{10}{12}, \frac{15}{18}, \frac{20}{24}$
 - $\frac{10}{16}, \frac{15}{24}, \frac{20}{32}$
 - $\frac{14}{18}, \frac{21}{27}, \frac{28}{36}$
 - $\frac{16}{18}, \frac{24}{27}, \frac{32}{36}$
 - $\frac{6}{8}, \frac{9}{12}, \frac{12}{16}$
 - $\frac{8}{10}, \frac{12}{15}, \frac{16}{20}$
 - $\frac{10}{14}, \frac{15}{21}, \frac{20}{28}$
 - $\frac{14}{16}, \frac{21}{24}, \frac{28}{32}$
 - $\frac{4}{10}, \frac{6}{15}, \frac{8}{20}$

Exercise 6.3A

1. $\frac{4}{6} = \frac{2}{3}$ 2. $\frac{2}{4} = \frac{1}{2}$ 3. $\frac{6}{8} = \frac{3}{4}$ 4. $\frac{5}{10} = \frac{1}{2}$
5. $\frac{6}{10} = \frac{3}{5}$ 6. $\frac{2}{6} = \frac{1}{3}$ 7. $\frac{6}{9} = \frac{2}{3}$ 8. $\frac{2}{10} = \frac{1}{5}$

Exercise 6.3B

1. (a) $\frac{1}{2}$ (b) $\frac{1}{2}$ (c) $\frac{1}{4}$ (d) $\frac{1}{3}$
(e) $\frac{1}{3}$ (f) $\frac{1}{2}$ (g) $\frac{1}{4}$ (h) $\frac{1}{4}$
(i) $\frac{1}{2}$ (j) $\frac{1}{5}$ (k) $\frac{1}{2}$ (l) $\frac{1}{7}$
(m) $\frac{1}{6}$ (n) $\frac{1}{5}$ (o) $\frac{1}{3}$
2. (a) $\frac{2}{5}$ (b) $\frac{2}{3}$ (c) $\frac{2}{3}$ (d) $\frac{2}{3}$
(e) $\frac{2}{3}$ (f) $\frac{3}{5}$ (g) $\frac{4}{5}$ (h) $\frac{3}{4}$
(i) $\frac{5}{6}$ (j) $\frac{5}{6}$ (k) $\frac{5}{6}$ (l) $\frac{1}{2}$
(m) $\frac{9}{10}$ (n) $\frac{2}{3}$ (o) $\frac{1}{3}$

Exercise 6.4A

1. $\frac{3}{6} < \frac{4}{6}$ 2. $\frac{4}{7} > \frac{2}{7}$ 3. $\frac{6}{10} < \frac{7}{10}$
4. $\frac{1}{3} < \frac{3}{3}$ 5. $\frac{6}{8} > \frac{5}{8}$ 6. $\frac{8}{9} > \frac{4}{9}$
7. $\frac{2}{8} < \frac{4}{8}$ 8. $\frac{3}{4} > \frac{1}{4}$ 9. $\frac{3}{7} < \frac{6}{7}$
10. $\frac{2}{10} > \frac{1}{10}$ 11. $\frac{2}{9} < \frac{7}{9}$ 12. $\frac{7}{8} > \frac{3}{8}$
13. $\frac{5}{10} > \frac{4}{10}$ 14. $\frac{1}{3} < \frac{2}{3}$ 15. $\frac{5}{5} > \frac{1}{5}$
16. $\frac{5}{7} > \frac{2}{7}$ 17. $\frac{1}{2} < \frac{2}{2}$ 18. $\frac{6}{9} > \frac{4}{9}$
19. $\frac{1}{5} < \frac{3}{5}$ 20. $\frac{2}{6} < \frac{5}{6}$

Exercise 6.4B

1. $\frac{2}{5} < \frac{7}{10}$ 2. $\frac{1}{4} < \frac{3}{6}$ 3. $\frac{2}{8} < \frac{2}{3}$ 4. $\frac{3}{4} > \frac{4}{7}$
5. $\frac{4}{5} > \frac{3}{8}$ 6. $\frac{2}{3} < \frac{8}{9}$ 7. $\frac{3}{6} = \frac{1}{2}$ 8. $\frac{4}{5} > \frac{2}{3}$
9. $\frac{2}{8} < \frac{3}{8}$ 10. $\frac{3}{4} > \frac{2}{3}$

Exercise 6.4C

1. $\frac{2}{3} > \frac{2}{5}$ 2. $\frac{2}{4} > \frac{1}{3}$ 3. $\frac{5}{6} > \frac{4}{5}$ 4. $\frac{1}{2} = \frac{3}{6}$
5. $\frac{3}{7} < \frac{3}{4}$ 6. $\frac{3}{9} < \frac{6}{7}$ 7. $\frac{2}{3} > \frac{3}{5}$ 8. $\frac{3}{4} > \frac{6}{9}$
9. $\frac{2}{5} > \frac{1}{3}$ 10. $\frac{8}{10} > \frac{6}{9}$

Exercise 6.5A

1. 8 2. 8 3. 5 4. 5 5. 4
6. 5 7. 20 8. 6 9. 3 10. 5
11. 12 12. 21 13. 20 14. 6 15. 24
16. 35 17. 14 18. 30 19. 16 20. 10

Exercise 6.5B

1. 4 2. 10 3. 3 4. 8 5. 3
6. 7 7. 30 8. 9 9. 4 10. 9

11. 9 12. 9 13. 2 14. 10 15. 5
16. 50 17. 4 18. 6 19. 8 20. 30

Exercise 6.6

6.1

- (a) $\frac{1}{6}$ (b) $\frac{6}{9}$ (c) $\frac{4}{5}$ (d) $\frac{2}{9}$

6.2

- (a) $\frac{8}{10}, \frac{12}{15}, \frac{16}{20}$ (b) $\frac{4}{6}, \frac{6}{9}, \frac{8}{12}$ (c) $\frac{10}{16}, \frac{15}{24}, \frac{20}{32}$

6.3

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

6.4

- (a) $\frac{1}{4} < \frac{2}{4}$ (b) $\frac{6}{7} > \frac{3}{7}$ (c) $\frac{2}{3} > \frac{1}{3}$

6.5

- (a) 4 (b) 6 (c) 30

Chapter 7

Exercise 7.1A

1. (a) $\frac{7}{10}$ (b) 0.7 2. (a) $\frac{8}{10}$ (b) 0.8
3. (a) $\frac{3}{10}$ (b) 0.3 4. (a) $\frac{5}{10}$ (b) 0.5
5. (a) $\frac{1}{10}$ (b) 0.1 6. (a) $\frac{9}{10}$ (b) 0.9
7. (a) $\frac{6}{10}$ (b) 0.6 8. (a) $\frac{4}{10}$ (b) 0.4
9. (a) $\frac{0}{10}$ (b) 0 10. (a) $\frac{4}{10}$ (b) 0.4

Exercise 7.1B

1. (a) $\frac{9}{10}$ (b) 0.9 2. (a) $\frac{6}{10}$ (b) 0.6
3. (a) $\frac{10}{10}$ (b) 1 4. (a) $\frac{2}{10}$ (b) 0.2
5. (a) $\frac{4}{10}$ (b) 0.4 6. (a) $\frac{7}{10}$ (b) 0.7
7. (a) $\frac{5}{10}$ (b) 0.5 8. (a) $\frac{1}{10}$ (b) 0.1
9. (a) $\frac{8}{10}$ (b) 0.8 10. (a) $\frac{3}{10}$ (b) 0.3
11. (a) $\frac{8}{10}$ (b) 0.8 12. (a) $\frac{3}{10}$ (b) 0.3

Exercise 7.1C

1. (a) 4 and $\frac{1}{10}$ (b) 4.1 2. (a) 3 and $\frac{8}{10}$ (b) 3.8
3. (a) 2 and $\frac{5}{10}$ (b) 2.5 4. (a) 6 and $\frac{2}{10}$ (b) 6.2
5. (a) 7 and $\frac{4}{10}$ (b) 7.4 6. (a) 4 and $\frac{9}{10}$ (b) 4.9
7. (a) 1 and $\frac{7}{10}$ (b) 1.7 8. (a) 2 and $\frac{5}{10}$ (b) 2.5
9. (a) 5 and $\frac{3}{10}$ (b) 5.3 10. (a) 6 and $\frac{9}{10}$ (b) 6.9

Exercise 7.1D

1. 0.7 2. 0.5 3. 0.8 4. 1.3 5. 0.4
6. 0.3 7. 5.3 8. 7.6 9. 8.4 10. 10.3
11. 20.9 12. 7.8 13. 19.6 14. 40.8 15. 4.5
16. 10.9 17. 7.1 18. 0.6

Exercise 7.2A

- Two tenths.
- Nine tenths.
- Eight tenths.
- Three tenths.
- Seven tenths.
- Five tenths.
- Four tenths.
- One tenth.
- Six tenths.
- Two units and four tenths.
- Three units and two tenths.
- Five units and five tenths.
- Four units and four tenths.
- Three units and six tenths.
- One unit and nine tenths.
- Seven units and three tenths.
- Nine units and one tenth.
- Four units and six tenths.
- One unit and eight tenths.
- Three units and nine tenths.

Exercise 7.2B

- | | | |
|----------------|----------------|---------------|
| 1. $3 + 0.1$ | 2. $2 + 0.5$ | 3. $1 + 0.2$ |
| 4. $2 + 0.3$ | 5. $6 + 0.4$ | 6. $8 + 0.9$ |
| 7. $7 + 0.2$ | 8. $4 + 0.6$ | 9. $5 + 0.6$ |
| 10. $8 + 0.8$ | 11. $12 + 0.7$ | 12. $3 + 0.8$ |
| 13. $10 + 0.1$ | 14. $1 + 0.8$ | 15. $6 + 0.1$ |
| 16. $4 + 0.2$ | 17. $50 + 0.3$ | 18. $9 + 0.9$ |
| 19. $3 + 0.7$ | 20. $8 + 0.5$ | |

Exercise 7.3

- | | | |
|-------------------|---------------------|-------------------|
| 1. 8.8, 7.9, 7.8 | 2. 5.5, 5.4, 4.5 | 3. 2.2, 2.1, 1.2 |
| 4. 6.6, 6.3, 3.6 | 5. 5.9, 5.8, 5.5 | 6. 1.3, 1.2, 1.1 |
| 7. 8.6, 6.8, 6.4 | 8. 3.3, 1.3, 1.1 | 9. 7.7, 7.6, 7.1 |
| 10. 4.8, 4.5, 4.1 | 11. 16.8, 6.8, 6.1 | 12. 6.2, 2.8, 2.6 |
| 13. 9.9, 9.6, 9.2 | 14. 7.9, 7.8, 7.3 | 15. 8.6, 8.4, 8.1 |
| 16. 5.5, 5.4, 5.1 | 17. 90.2, 19.2, 9.2 | 18. 7.7, 7.2, 7.1 |
| 19. 0.7, 0.2, 0.1 | 20. 0.5, 0.3, 0.2 | |

Exercise 7.4

- | | | | | |
|---------|----------|---------|---------|---------|
| (a) 0.6 | (b) 0.7 | (c) 1.5 | (d) 1.4 | (e) 1.2 |
| (f) 1.2 | (g) 12.4 | (h) 8.2 | (i) 2.2 | (j) 6.0 |
| (k) 8.9 | (l) 9.7 | (m) 2.7 | (n) 7.5 | (o) 6.6 |
- | | | | | |
|----------|---------|----------|----------|----------|
| (a) 6.5 | (b) 8.6 | (c) 9.5 | (d) 2.5 | (e) 10.6 |
| (f) 11.3 | (g) 4.0 | (h) 4.8 | (i) 4.3 | (j) 7.3 |
| (k) 7.8 | (l) 1.3 | (m) 12.9 | (n) 10.6 | (o) 1.1 |
| (p) 11.2 | (q) 5.2 | (r) 2.0 | (s) 20.7 | (t) 11.3 |

Exercise 7.5

- | | | | | |
|---------|----------|---------|---------|---------|
| (a) 5.2 | (b) 6.5 | (c) 3.1 | (d) 4.2 | (e) 2.8 |
| (f) 1.2 | (g) 12.4 | (h) 8.2 | (i) 2.2 | (j) 6.0 |

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| (k) 8.9 | (l) 9.7 | (m) 2.7 | (n) 7.5 | (o) 6.6 | |
| 2. | (a) 2.1 | (b) 1.4 | (c) 8.9 | (d) 1.3 | (e) 4.2 |
| (f) 9.7 | (g) 1.8 | (h) 2.2 | (i) 2.5 | (j) 0.9 | |
| (k) 2.9 | (l) 3.9 | (m) 3.3 | (n) 3 | (o) 0.7 | |
| (p) 1.4 | (q) 3.4 | (r) 1.2 | (s) 8.1 | (t) 1.1 | |

Exercise 7.6

7.1

- | | | |
|----------------------------|----------------------------|----------------------------------|
| (a) $\frac{6}{10}$ and 0.6 | (b) $\frac{8}{10}$ and 0.8 | (c) 3 and $\frac{3}{10}$ and 3.3 |
|----------------------------|----------------------------|----------------------------------|

7.2

- | | | |
|---------------|---------------|---------------|
| (a) $2 + 0.4$ | (b) $5 + 0.9$ | (c) $3 + 0.7$ |
|---------------|---------------|---------------|

7.3

- | | | |
|-------------------|-------------------|-------------------|
| (a) 8.5, 5.9, 5.8 | (b) 5.4, 4.5, 4.4 | (c) 9.1, 2.9, 1.9 |
|-------------------|-------------------|-------------------|

7.4

- | | | |
|----------|----------|----------|
| (a) 12.9 | (b) 10.6 | (c) 10.5 |
|----------|----------|----------|

7.5

- | | | |
|---------|---------|---------|
| (a) 1.7 | (b) 1.2 | (c) 1.5 |
|---------|---------|---------|

Chapter 8

Exercise 8.1

- | | | |
|---------------|--------------------|-------------|
| 1. £29 | 2. 5 minutes | 3. 56 beads |
| 4. 117 points | 5. 4 grams | 6. 8 |
| 7. 95 cm | 8. 22 points | 9. £31 |
| 10. 4 pizzas | 11. $\frac{3}{10}$ | 12. 4 m. No |

Exercise 8.2

- | | | |
|---|---------------|-------------|
| 1. £33 | 2. 10 minutes | 3. 90 beads |
| 4. 132 points | 5. 4 grams | 6. 7 |
| 7. 132 cm | 8. 22 points | 9. £22 |
| 10. 5 pizzas | | |
| 11. Vanessa scored higher by $\frac{1}{10}$ | | |
| 12. 6 m. Yes he is successful | | |

Exercise 8.3

- | | | |
|---------------|-------------|-------------|
| 1. 3680 m | 2. 10.5 kg | 3. 61 boxes |
| 4. 22 bricks | 5. 309 km | 6. No |
| 7. 137 people | 8. £5409 | 9. 8 |
| 10. 372 kg | 11. 41.3 cm | 12. 56.7 kg |

Exercise 8.4

- | | | |
|---------------|--------------|---------------|
| 1. 5175 m | 2. 18 kg | 3. 175 |
| 4. 9 bricks | 5. 89 km | 6. Yes |
| 7. 113 people | 8. £1028 | 9. 14 |
| 10. 6.8 kg | 11. 332.5 km | 12. 50 000 kg |

Exercise 8.5

- | | |
|--------------------|---------------|
| 1. 40 376 biscuits | 2. £4800 |
| 3. £1420 | 4. 380,000 km |
| 5. 63 | 6. 4029 km |

7. £224
 9. 3185 calories
 11. 36 lengths
8. £111.93
 10. 72 kg
 12. 4632 minutes

Exercise 8.6

1. 55 097 loaves
 3. £1605
 5. 65 cards
 7. £392
 9. 2464 calories
 11. 16 lengths
2. £4175
 4. 40 000
 6. 3867 km
 8. £116.82
 10. 71.5 kg
 12. 3650 minutes

Chapter 9

Exercise 9.1

1. 749 2. 54 3. 100
 4. Nine hundred and twenty-two.
 5. 11 6. 48 7. 5 8. 0.6
 9. 14 10. 1, 2, 3, 6 11. 78 12. 4

Exercise 9.2

1. 455 2. 44 3. 250
 4. Eight hundred and seventy-two.
 5. 15 6. 45 7. 3
 8. 0.9 9. 21 10. 1, 2, 3, 4, 6, 12
 11. 115 12. 4

Exercise 9.3

1. 5 2. 7, 14, 21, 28, 35
 3. 60
 4. One thousand, nine hundred and two.
 5. 3817 6. 72
 7. 8 8. 608
 9. 7 10. 1, 5, 25
 11. 111 12. 500

Exercise 9.4

1. 10 2. 6, 12, 18, 24, 30
 3. 45
 4. Three thousand, six hundred and ninety-nine.
 5. 2139 6. 49
 7. 4 8. 196
 9. 9 10. 1, 2, 4, 5, 8, 10, 20, 40
 11. 327 12. 700

Exercise 9.5

1. 1, 3, 5, 9, 15, 45 2. 4.9
 3. 45 4. 65
 5. 10 304
 6. Forty-five thousand, nine hundred and eighty.
 7. 14 8. 843

9. 20 000 10. 14
 11. 213 12. 24

Exercise 9.6

1. 1, 2, 4, 8, 16, 32 2. 3.8
 3. 36 4. 60
 5. 13 492.
 6. Sixty-seven thousand, one hundred and twenty-two.
 7. 18 8. 879
 9. 60 000 10. 12
 11. 298 12. 35

Chapter 10

Exercise 10.1

1. 4000 2. Six hundred and ninety-eight.
 3. 95 4. 134, 154, 156, 178
 5. 946 6. 270 7. 125
 8. 5.2 9. 275 10. 378
 11. 764 12. 5 13. 13
 14. 123 15. 154 16. 1770
 17. 6100 18. 741 19. 4.2
 20. 612, 616, 647, 661

Exercise 10.2

1. 7000 2. Four hundred and fifty-two.
 3. 99 4. 407, 474, 477, 740
 5. 653 6. 189 7. 91
 8. 6.8 9. 587 10. 994
 11. 872 12. 5 13. 28
 14. 194 15. 235 16. 7810
 17. 2300 18. 985 19. 9.9
 20. 303, 323, 332, 333

Exercise 10.3

1. 90 000
 2. Six thousand, seven hundred and eighteen.
 3. 956 4. 2545, 5022, 5245, 5522
 5. 4684 6. 30 738 7. 939
 8. 10 9. 785 10. 77
 11. 7061 12. 9 13. 24
 14. 1163 15. 65 16. 19 100
 17. 33 000 18. 845 19. 12.7
 20. 5441, 5478, 5772, 5774

Exercise 10.4

1. 50 000
 2. Three thousand, two hundred and fifteen.
 3. 601 4. 1834, 8116, 8178, 8544
 5. 1573 6. 7084 7. 957

8. 13.1 9. 521 10. 65
 11. 11 105 12. 9 13. 125
 14. 2511 15. 88 16. 23 300
 17. 78 000 18. 995 19. 13.5
 20. 1254, 1645, 6452, 6522

Exercise 10.5

1. 300 000
 2. One hundred and two thousand, two hundred and seventy-seven.
 3. 9674 4. 202, 1200, 1202, 1222
 5. 1613 6. 75 138 7. 3561
 8. 26.7 9. 3331 10. 654
 11. 24 498 12. 22 13. 10
 14. 19 809 15. 32 16. 232 300
 17. 33 000 18. 9890 19. 57.9
 20. 125, 1125, 1235, 1352

Exercise 10.6

1. 700 000
 2. Two hundred and twelve thousand, one hundred and twenty-two.
 3. 7573 4. 701, 7001, 7010, 7011
 5. 643 6. 103 040 7. 4704
 8. 43.4 9. 4227 10. 265
 11. 46 696 12. 12 13. 18
 14. 18 289 15. 77 16. 965 600
 17. 64 000 18. 4740 19. 64.5
 20. 3652, 5236, 5326, 6523

Chapter 11

Exercise 11.1

1.
 (a) 19 (b) 11 (c) 10 (d) 14 (e) 10
 (f) 13 (g) 5 (h) 15 (i) 7 (j) 12
 (k) 10 (l) 8 (m) 12 (n) 7 (o) 8
 (p) 9 (q) 10 (r) 17 (s) 8 (t) 8
 2.
 (a) 22 (b) 23 (c) 21 (d) 24 (e) 33
 (f) 25 (g) 50 (h) 25 (i) 58 (j) 22
 (k) 15 (l) 17 (m) 45 (n) 18 (o) 30
 (p) 30 (q) 23 (r) 38 (s) 21 (t) 28

Exercise 11.2A

1.
 (a) 12 (b) 32 (c) 17 (d) 26 (e) 19
 (f) 4 (g) 6 (h) 40 (i) 1 (j) 19
 (k) 27 (l) 49 (m) 22 (n) 1 (o) 31
 (p) 26 (q) 23 (r) 18 (s) 21 (t) 8

2.
 (a) 13 (b) 37 (c) 37 (d) 60 (e) 29
 (f) 10 (g) 32 (h) 25 (i) 17 (j) 35
 (k) 50 (l) 23 (m) 31 (n) 18 (o) 22
 (p) 43 (q) 31 (r) 55 (s) 13 (t) 15

Exercise 11.2B

1.
 (a) 1 (b) 10 (c) 11 (d) 13 (e) 12
 (f) 10 (g) 9 (h) 12 (i) 2 (j) 13
 (k) 18 (l) 1 (m) 14 (n) 15 (o) 1
 (p) 7 (q) 16 (r) 15 (s) 3 (t) 23
 2.
 (a) 4 (b) 13 (c) 20 (d) 18 (e) 9
 (f) 5 (g) 25 (h) 12 (i) 3 (j) 13
 (k) 15 (l) 2 (m) 23 (n) 25 (o) 4
 (p) 18 (q) 25 (r) 11 (s) 4 (t) 30

Exercise 11.3

- 11.1
 (a) 26 (b) 51 (c) 19
 (d) 10 (e) 14 (f) 10
 11.2
 (a) 33 (b) 21 (c) 38
 (d) 6 (e) 13 (f) 12

Chapter 12

Exercise 12.1A

1.
 (a) £13.09 (b) £7.21 (c) £12.61 (d) £14.81
 (e) £7.12 (f) £17.12 (g) £9.53 (h) £8.64
 (i) £11.24 (j) £15.93 (k) £5.49 (l) £10.90
 (m) £8.52 (n) £9.38 (o) £14.50 (p) £11.01
 (q) £7.49 (r) £16.81 (s) £7.32 (t) £9.58
 2.
 (a) £7.49 (b) £2.74 (c) £4.53 (d) £4.69
 (e) £1.50 (f) £1.62 (g) £5.13 (h) £4.74
 (i) £1.25 (j) £1.63 (k) £1.53 (l) £0.99
 (m) £1.04 (n) £4.38 (o) £4.14 (p) £3.84
 (q) £1.53 (r) £1.65 (s) £0.99 (t) £3.71

Exercise 12.1B

1. £8.09 2. £14.78 3. £16.71 4. £17.02
 5. £6.77 6. £11.95 7. £3.30 8. £2.44
 9. £23.32 10. £3.08

Exercise 12.1C

1.
 (a) £15.50 (b) £17.89 (c) £15.87 (d) £11.82
 (e) £13.51 (f) £0.08 (g) £12.53 (h) £11.34

- (i) £3.67 (j) £11.13 (k) £16.88 (l) £0.09
 (m) £7.75 (n) £13.06 (o) £10.88 (p) £11.09
 (q) £12.99 (r) £1.91 (s) £10.01 (t) £4.13
2.
 (a) £1.01 (b) £7.56 (c) £3.58 (d) £9.77
 (e) £19.24 (f) £18.90 (g) £8.12 (h) £4.02
 (i) £15.30 (j) £2.24

Exercise 12.2

1. $£3 > £2.50$, ten bars are cheaper
2. $£1 > £0.60$, individual bananas are cheaper
3. $£1.50 < £1.80$, three-pack cheaper
4. $£2 = £2$, equal price
5. $£2.40 > £2.24$, eight individual bags are cheaper
6. $£5.04 > £4.95$, the individual cans are cheaper
7. $£1.80 > £1.32$, the individual eggs are cheaper
8. $£1.92 < £2.04$, the six-pack of apples are cheaper
9. $£2 < £2.25$, three-pack avocados are cheaper
10. $£1.20 < £1.32$, the four-pack are cheaper
11. $£1.47 > £1.33$, the individual oranges are cheaper
12. $£3.72 > £3.24$, the individual cans are cheaper

Exercise 12.3A

1. Olivia does not have enough money to buy the items
2. Patrick does not have enough money to buy the items
3. Ethan has enough money to buy the items
4. Emma does not have enough money to buy the items
5. Benjamin does not have enough money to buy the items
6. Mateo does not have enough money to buy the items
7. Aisha does not have enough money to buy the items
8. Nasir does not have enough money to buy the items
9. Lina has enough money to buy the items
10. Kayden has enough money to buy the items
11. Fatima has enough money to buy the items
12. Hazel has enough money to buy the items

Exercise 12.3B

- | | | |
|--------------|--------------|---------------|
| 1. 4 weeks | 2. 6 weeks | 3. 6 weeks |
| 4. 8 weeks | 5. 20 months | 6. 11 weeks |
| 7. 6 weeks | 8. 5 months | 9. 8 weeks |
| 10. 5 months | 11. 5 months | 12. 16 months |

Exercise 12.4

12.1A

- | | | |
|-----------|------------|------------|
| (a) £6.44 | (b) £15.54 | (c) £10.45 |
| (d) £1.72 | (e) £5.60 | (f) £3.44 |

12.1C

- | | | |
|-----------|------------|-----------|
| (a) £9.11 | (b) £16.55 | (c) £1.47 |
|-----------|------------|-----------|

12.2

- (a) The five-pack of pencils is cheaper
- (b) The individual bars are cheaper
- (c) The individual ring binders are cheaper

12.3

- (a) Laura has enough money to buy the items
- (b) Chrissy does not have enough money to buy the items
- (c) 3 weeks
- (d) 10 months

Chapter 13

Exercise 13.1A

- | | |
|------------------------|----------------------|
| 1. Four o'clock | 2. Quarter to one |
| 3. Quarter past twelve | 4. Quarter to eleven |
| 5. Half past six | 6. Quarter past four |
| 7. Half past eight | 8. Quarter past nine |
| 9. Quarter past two | 10. Eight o'clock |
| 11. Half past ten | 12. One o'clock |
| 13. Quarter to eight | 14. Half past five |
| 15. Half past three | 16. Six o'clock |
| 17. Quarter to six | 18. Quarter past six |
| 19. Quarter to three | 20. Eleven o'clock |

Exercise 13.1B

- | | |
|------------------------|---------------------|
| 1. Twenty past four | 2. Twenty past one |
| 3. Ten past nine | 4. Ten past twelve |
| 5. Twenty past eight | 6. Ten past three |
| 7. Twenty past five | 8. Ten past ten |
| 9. Ten past four | 10. Twenty past two |
| 11. Twenty past eleven | 12. Ten past five |

Exercise 13.1C

- | | |
|---------------------|-------------------|
| 1. Ten to four | 2. Ten to six |
| 3. Twenty to six | 4. Twenty to nine |
| 5. Ten to one | 6. Twenty to five |
| 7. Twenty to eleven | 8. Ten to nine |

Exercise 13.1D

- | | |
|-------------------------|----------------------------|
| 1. Twenty-five past ten | 2. Twenty-five past twelve |
| 3. Twenty-five past six | 4. Five past six |
| 5. Five past twelve | 6. Five past three |
| 7. Five past eleven | 8. Twenty-five past eight |

Exercise 13.1E

- | | |
|--------------------------|-----------------------|
| 1. Twenty-five to twelve | 2. Twenty-five to six |
| 3. Five to nine | 4. Five to eight |

5. Five to five 6. Five to three
7. Twenty-five to ten 8. Twenty-five to one

Exercise 13.1F

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

Exercise 13.2A

1.
(a) 0700 (b) 0900 (c) 0200 (d) 0600 (e) 1000
(f) 0400 (g) 1030 (h) 0530 (i) 0130
(j) 0745 (k) 0945 (l) 0345 (m) 0540 (n) 1105
(o) 0020 (p) 0835 (q) 0450 (r) 0655 (s) 0125
(t) 0250

2.
(a) 1700 (b) 1600 (c) 1300 (d) 2000 (e) 2300
(f) 2100 (g) 2030 (h) 2230 (i) 1230
(j) 1645 (k) 1345 (l) 1445 (m) 1840 (n) 2205
(o) 1420 (p) 1935 (q) 1550 (r) 1955
(s) 1725 (t) 2250

Exercise 13.2B

1.
(a) 7 am (b) 5 am (c) 3 am (d) 4 am
(e) 10 am (f) 2 am (g) 9.30 am (h) 11.30 am
(i) 4.30 am (j) 11.50 am (k) 1.20 am (l) 6.15 am
(m) 2.55 am (n) 5.35 am (o) 12.05 am (p) 4.35 am
(q) 1.05 am (r) 6.40 am (s) 5.10 am (t) 8.15 am

2.
(a) 6 pm (b) 10 pm (c) 3 pm (d) 7 pm
(e) 11 pm (f) 2 pm (g) 9.30 pm (h) 11.30 pm
(i) 4.45 pm (j) 11.50 pm (k) 11.20 pm (l) 6.40 pm
(m) 2.55 pm (n) 5.35 pm (o) 12.05 pm (p) 4.35 pm
(q) 1.05 pm (r) 6.40 pm (s) 9.10 pm (t) 8.15 pm

Exercise 13.3A

1.
(a) 600 mins (b) 360 mins (c) 480 mins (d) 120 mins
(e) 150 mins (f) 90 mins (g) 270 mins (h) 390 mins
(i) 330 mins (j) 450 mins (k) 630 mins (l) 540 mins
2.
(a) 360 secs (b) 180 secs (c) 300 secs (d) 120 secs
(e) 270 secs (f) 150 secs (g) 90 secs (h) 330 secs
(i) 450 secs (j) 630 secs (k) 570 secs (l) 390 secs
3.
(a) 195 mins (b) 165 mins (c) 255 mins (d) 105 mins
(e) 555 mins (f) 75 mins (g) 315 mins (h) 405 mins
(i) 435 mins (j) 375 mins (k) 525 mins (l) 585 mins

4.
(a) 315 secs (b) 645 secs (c) 135 secs (d) 285 secs
(e) 195 secs (f) 495 secs (g) 555 secs (h) 405 secs
(i) 615 secs (j) 255 secs (k) 165 secs (l) 585 secs

Exercise 13.3B

1.
(a) 5 hrs (b) 10 hrs (c) 4 hrs
(d) 7 hrs (e) 9 hrs (f) 8 hrs
(g) 11 hrs (h) 1 hr (i) 20 hrs
(j) 3 hrs 25 mins (k) 2 hrs 30 mins (l) 1 hr 30 mins (m) 1 hr 50 mins
(n) 1 hr 20 mins (o) 1 hr 40 mins (p) 2 hrs 15 mins
(q) 2 hrs 40 mins (r) 3 hrs 30 mins (s) 7 hrs 20 mins
(t) 5 hrs 20 mins

2.
(a) 11 mins (b) 7 mins (c) 10 mins
(d) 4 mins (e) 9 mins (f) 20 mins
(g) 5 mins (h) 1 min (i) 8 mins
(j) 3 mins 35 secs (k) 2 mins 35 secs (l) 1 min 15 secs
(m) 2 mins 10 secs (n) 1 min 30 secs (o) 1 min 50 secs (p) 2 mins 25 secs
(q) 2 mins 45 secs (r) 3 mins 50 secs
(s) 7 mins 30 secs (t) 5 mins 5 secs

Exercise 13.4A

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

Exercise 13.4B

Answers for this exercise will vary.

Exercise 13.5A

1.
(a) Friday 7th February (b) Thursday 13th February
(c) Sunday 23rd February (d) Dentist
(e) Buy gift for Valentine's (f) 4
(g) 2 (h) Football match
2.
(a) Friday 8th August (b) 4
(c) 1st – 7th August (d) Wednesday 13th August
(e) Dog sitting for Smiths (f) Sunday 24th August
(g) Gia's birthday (h) 7
(i) Beach day (j) Monday 18th August
(k) Thomas's birthday (l) Sunday 10th August

Exercise 13.5B

Answers will vary depending on year.

Exercise 13.6

1.
(a) 1 hr 30 mins (b) 1 hr 15 mins (c) 1 hr 10 mins
(d) 1 hr 30 mins (e) 1 hr 10 mins (f) 2 hrs 10 mins
(g) 4 hrs 40 mins (h) 1 hr 10 mins (i) 3 hrs 5 mins
(j) 2 hrs 30 mins (k) 2 hr 10 mins (l) 3 hrs 5 mins
(m) 1 hr 40 mins (n) 1 hr 55 mins (o) 2 hrs 45 mins
(p) 1 hr 50 mins (q) 4 hrs 5 mins (r) 2 hrs 55 mins
(s) 2 hrs 35 mins (t) 3 hrs 20 mins

2.
(a) 1 hr 10 mins (b) 2 hrs 15 mins (c) 2 hrs 20 mins
(d) 1 hr 15 mins (e) 3 hrs 20 mins (f) 2 hrs 20 mins
(g) 2 hrs 20 mins (h) 4 hr 10 mins (i) 2 hrs 50 mins
(j) 4 hrs 10 mins (k) 4 hrs 10 mins (l) 55 mins

3.
(a) 1 hr 40 mins (b) 1 hr 55 mins (c) 2 hrs 45 mins
(d) 1 hr 50 mins (e) 4 hrs 5 mins (f) 2 hrs 55 mins
(g) 2 hrs 35 mins (h) 3 hrs 20 mins (i) 55 mins

4.
(a) 3 hrs 55 mins (b) 2 hrs 50 mins (c) 4 hrs 15 mins
(d) 4 hrs 55 mins (e) 4 hrs 40 mins (f) 3 hrs 30 mins
(g) 2 hrs 55 mins (h) 2 hrs 45 mins (i) 3 hrs 45 mins

Exercise 13.7

- 13.1
(a) Five to eight (b) Twenty-five to twelve
(c) Quarter to one

- 13.2A
(a) 0915 (b) 1515 (c) 0140

- 13.2B
(a) 5.25 am (b) 6.30 pm (c) 8.10 pm

- 13.3
(a) 3 hours 25 minutes (b) 5 hours 10 minutes
(c) 1 hour 35 minutes

- 13.6
(a) 5 hrs 35 mins (b) 4 hrs 20 mins (c) 2 hrs 5 mins
(d) 3 hrs 40 mins (e) 2 hrs 50 mins

Chapter 14

Exercise 14.1A

1.
(a) 100 (b) 70 (c) 200 (d) 40
(e) 120 (f) 650 (g) 900 (h) 25
2.
(a) 115 (b) 45 (c) 800 (d) 75
(e) 950 (f) 55 (g) 10 (h) 580
(i) 340 (j) 38 (k) 137 (l) 37

Exercise 14.1B

1. 6 cm 2. 9 cm 3. 5 cm 4. 1 cm
5. 11 cm 6. 7 cm 7. 10 cm 8. 8 cm
9. 47 mm 10. 34 mm 11. 93 mm 12. 49 mm

Exercise 14.2A

1.
(a) 4 cm (b) 1 cm (c) 8 cm (d) 5 cm
(e) 6 cm (f) 7 cm (g) 12 cm (h) 9 cm
2.
(a) 35 mm (b) 25 mm (c) 65 mm (d) 45 mm
(e) 15 mm (f) 85 mm (g) 105 mm (h) 125 mm
3.
(a) 14 mm (b) 32 mm (c) 54 mm (d) 11 mm
(e) 82 mm (f) 116 mm (g) 101 mm (h) 97 mm

Exercise 14.2C

1.
(a) Ruler (b) Ruler (c) Ruler
(d) Metre stick (e) Metre stick (f) Metre stick
(g) Metre stick (h) Metre stick

Exercise 14.3

Answers for this exercise will vary.

Exercise 14.4A

1.
(a) 80 mm (b) 90 mm (c) 40 mm (d) 120 mm
(e) 10 mm (f) 150 mm (g) 100 mm (h) 20 mm
(i) 180 mm (j) 250 mm (k) 210 mm (l) 270 mm
(m) 320 mm (n) 130 mm (o) 190 mm (p) 450 mm
(q) 420 mm (r) 500 mm (s) 650 mm (t) 770 mm
2.
(a) 9 cm (b) 1 cm (c) 4 cm (d) 12 cm
(e) 10 cm (f) 15 cm (g) 23 cm (h) 2 cm
(i) 17 cm (j) 55 cm (k) 49 cm (l) 26 cm
(m) 3.2 cm (n) 14 cm (o) 29 cm (p) 36 cm
(q) 58 cm (r) 60 cm (s) 78 cm (t) 18 cm

Exercise 14.4B

1.
(a) 700 cm (b) 200 cm (c) 400 cm (d) 1000 cm
(e) 100 cm (f) 1600 cm (g) 1100 cm (h) 600 cm
(i) 1900 cm (j) 2100 cm (k) 2300 cm (l) 2500 cm
(m) 3300 cm (n) 1500 cm (o) 1800 cm (p) 4900 cm
(q) 4500 cm (r) 5500 cm (s) 6400 cm (t) 7400 cm
2.
(a) 8 m (b) 10 m (c) 4 m (d) 11 m (e) 15 m
(f) 16 m (g) 17 m (h) 20 m (i) 23 m (j) 55 m
(k) 50 m (l) 26 m (m) 32 m (n) 14 m (o) 28 m
(p) 36 m (q) 58 m (r) 60 m (s) 79 m (t) 18 m

Exercise 14.5

14.1A

- (a) 90 (b) 700 (c) 90 (d) 725

14.1B

- (a) 12 cm (b) 25 mm

14.2A

- (a) 110 mm (b) 90 mm

14.4A

- (a) 400 cm (b) 1000 cm (c) 3 cm (d) 8 cm

Chapter 15

Exercise 15.1A

- | | | | |
|-------------|-------------|------------|--------------|
| 1. Acute | 2. Obtuse | 3. Right | 4. Acute |
| 5. Acute | 6. Straight | 7. Obtuse | 8. Right |
| 9. Straight | 10. Acute | 11. Reflex | 12. Straight |
| 13. Obtuse | 14. Right | 15. Acute | 16. Obtuse |
| 17. Obtuse | 18. Reflex | 19. Acute | 20. Reflex |

Exercise 15.1B

- | | | | |
|-------------|------------|------------|------------|
| 1. Right | 2. Acute | 3. Obtuse | 4. Reflex |
| 5. Reflex | 6. Obtuse | 7. Acute | 8. Obtuse |
| 9. Straight | 10. Acute | 11. Acute | 12. Obtuse |
| 13. Reflex | 14. Acute | 15. Obtuse | 16. Acute |
| 17. Acute | 18. Reflex | 19. Acute | 20. Acute |

Exercise 15.2

1.
 (a) East (b) West (c) South (d) West
 (e) West (f) East (g) East (h) North
 (i) West (j) East
2.
 (a) South (b) North (c) West (d) North
 (e) South (f) North (g) North (h) East
 (i) South (j) South

Exercise 15.3

- | | | | |
|-----------|-----------|------------|------------|
| 1. Arcade | 2. Cafe | 3. Doctors | 4. School |
| 5. Two | 6. Arcade | 7. Airport | 8. Doctors |

Exercise 15.4

15.1A

- (a) Obtuse (b) Straight (c) Reflex

15.1B

- (a) Acute (b) Obtuse (c) Reflex (d) Acute
 (e) Straight

15.2

- (a) East (b) South (c) North (d) North

Chapter 16

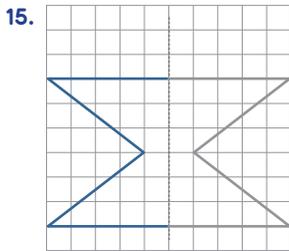
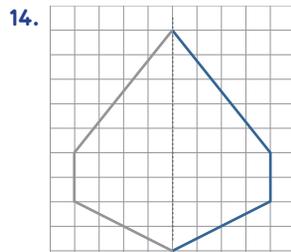
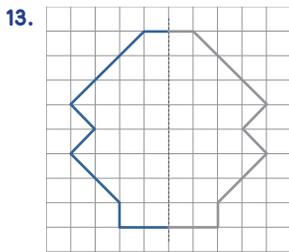
Exercise 16.1

1. 2 2. 4 3. 2 4. Infinite number

- | | | | | |
|-------|-------|-------|-------|-------|
| 5. 3 | 6. 1 | 7. 1 | 8. 2 | 9. 1 |
| 10. 0 | 11. 5 | 12. 1 | 13. 4 | 14. 5 |
| 15. 1 | 16. 1 | 17. 8 | 18. 4 | |

Exercise 16.2

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



Chapter 17

Exercise 17.1

1. 9 cm^2 2. 8 cm^2 3. 6 cm^2 4. 12 cm^2 5. 4 cm^2
 6. 16 cm^2 7. 5 cm^2 8. 15 cm^2 9. 10 cm^2
 10. 6 cm^2 11. 5 cm^2 12. 9 cm^2 13. 21 cm^2
 14. 16 cm^2 15. $C \text{ cm}^2$

Exercise 17.2

1.
 (a) 36 mm^2 (b) 144 cm^2 (c) 64 cm^2 (d) 9 cm^2
 (e) 4 m^2 (f) 169 cm^2 (g) 100 cm^2 (h) 81 cm^2
 (i) 400 mm^2 (j) 16 cm^2 (k) 225 mm^2 (l) 121 m^2
2.
 (a) 15 cm^2 (b) 27 cm^2 (c) 50 m^2 (d) 48 m^2
 (e) 3 cm^2 (f) 18 mm^2 (g) 36 cm^2 (h) 80 mm^2
 (i) 24 m^2 (j) 90 cm^2 (k) 200 m^2 (l) 440 cm^2

Exercise 17.3

1.
 (a) 48 cm (b) 56 mm (c) 32 m (d) 68 cm
 (e) 92 mm (f) 136 m (g) 128 cm (h) 408 mm
 (i) 240 cm (j) 20 cm (k) 28 mm (l) 24 cm
2.
 (a) 28 mm (b) 28 cm (c) 30 cm (d) 40 cm
 (e) 36 cm (f) 56 mm (g) 36 cm (h) 72 cm
 (i) 44 cm (j) 50 cm (k) 80 mm (l) 102 cm

Exercise 17.4

1-2. See the website for possible nets



Exercise 17.5

- 17.2
 (a) 144 cm^2 (b) 24 cm^2 (c) 400 cm^2 (d) 45 cm^2
- 17.3
 (a) 48 cm (b) 22 cm (c) 80 cm (d) 28 cm

Chapter 18

Exercise 18.1

1. (a) cube (b) six, (c) twelve (d) eight
 2. (a) cone, (b) two (c) one (d) one
 3. (a) sphere (b) one (c) zero (d) zero
 4. (a) cylinder (b) three (c) two (d) zero
 5. (a) cuboid (b) six (c) twelve (d) eight
 6. (a) cylinder (b) three (c) two (d) zero

Exercise 18.2A

1. See the website for possible nets
 2.

- (a) cube (b) cuboid (c) cylinder
 (d) cube (e) cylinder (f) cone



Exercise 18.3

1-2. See the website for possible nets

Exercise 18.4

18.1

- (a) (i) cuboid (ii) six (iii) twelve (iv) eight
 (b) (i) cylinder (ii) three (iii) two (iv) zero

18.2

1. Cylinder 2. Cuboid

Chapter 19

Exercise 19.1A

1.

- A(3, 6) B(8, 4) C(2, 3) D(7, 7) E(10, 2)
 F(1, 6) G(6, 0) H(10, 10) I(5, 9) J(11, 5)

2.

- A(5, 6) B(6, 3) C(2, 1) D(0, 9) E(8, 7)
 F(7, 10) G(1, 2) H(11, 9) I(3, 8) J(10, 1)

Exercise 19.1B

- A(9, 5) B(1, 1) C(4, 8) D(0, 9) E(8, 0)
 F(13, 14) G(6, 12) H(17, 8) I(2, 12) J(14, 4)
 K(0, 17) L(9, 18) M(16, 20) N(19, 17)

Exercise 19.2A

1. See the website for possible nets
 2.

- (a) Square (b) Rhombus (c) Kite (d) Triangle

3.

- (d) Cuboid

4.

- (d) Triangular Prism

5.

- (d) Square-based pyramid



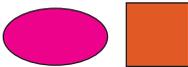
Chapter 20

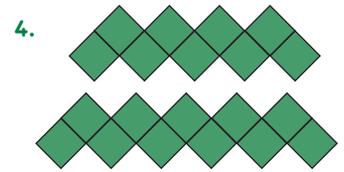
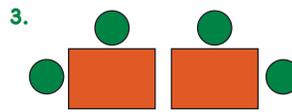
Exercise 20.1 Answers for this exercise may vary.

- Go east on Anne Drive. Pass three streets. The garage is on the right.
- Go east on Anne Drive. Pass four streets and turn left (north) on William Road. The Primary School is on the right.
- Go east on Anne Drive. Pass three streets and turn left (north) onto Elizabeth Drive. Take the second right (east) on to Charles Street. The shop is on the right.
- Go east on Charles Street. Take the first right (south) on to Albert Drive. Turn left (east) on George Street. Take the first right (south) on to Stanley Street. Take the first right (west) on to Anne Drive. Home is on the right.
- Go south on Henry Street. Take the first left (east) on to Charles Street. Pass the first street and turn right (south) on William Road. Pass the first street and the Primary School is on the left.
- Go west on Anne Drive. Take the first right (north) onto Henry Street. Pass two streets and turn left (west) on Victoria Drive. The Park is on the right.
- Go south on Elizabeth Drive. Take the first right (west) onto Charles Street. Pass three streets and the Cafe is on the right.
- Go west on George Street. Take first right (north) on to Henry Street. Pass the first street and turn left (west) onto Victoria Drive. The Park is on the right.
- Go south on Elizabeth Drive. Pass two streets and take a right (west) onto Anne Drive. Pass three streets and Home is on the right.
- Go north on William Road. Pass the first street and turn left (west) on Charles Street. Pass four streets and the Cafe is on the right.

Chapter 21

Exercise 21.1A

- 
- 

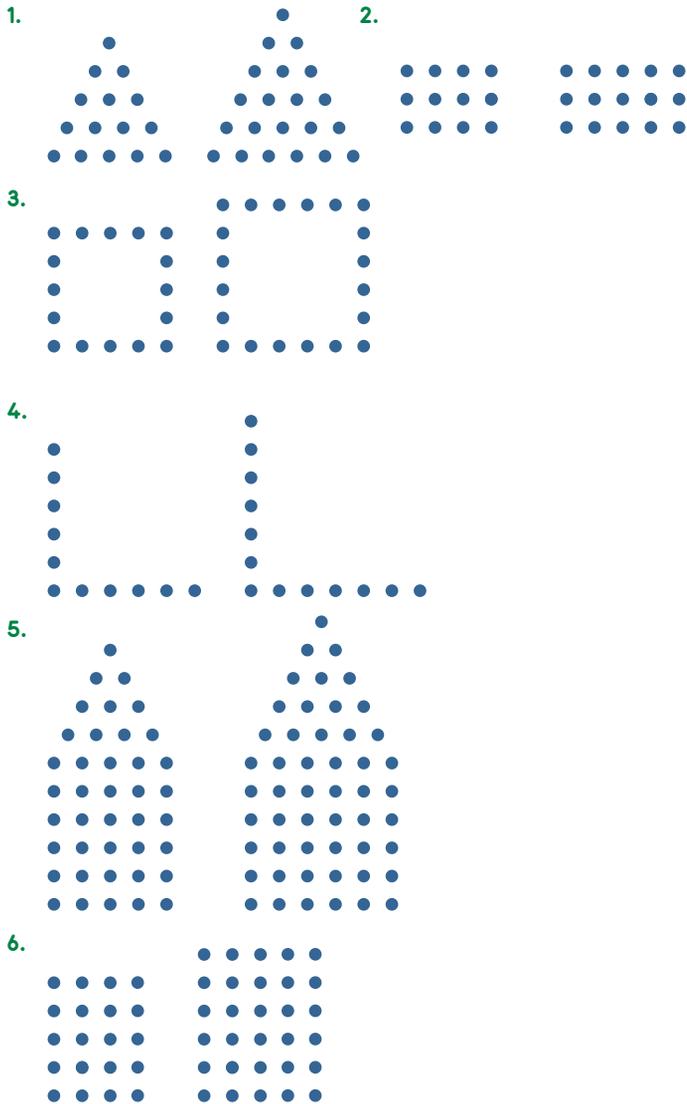


Exercise 21.1B

- (a) 12, 14, 16
(b) Start at four and add two each time.
- (a) 15, 18, 21
(b) Start at three and add three each time.
- (a) 47, 53, 59
(b) Start at twenty-three and add six each time.
- (a) 22, 19, 16
(b) Start at thirty-four and subtract three each time.
- (a) 65, 70, 75
(b) Start at forty-five and add five each time.
- (a) 68, 66, 64
(b) Start at seventy-six and subtract two each time.
- (a) 505, 606, 707
(b) Start at one hundred and one and add one hundred and one each time.
- (a) 300, 200, 100
(b) Start at seven hundred and subtract one hundred each time.
- (a) 45, 54, 63
(b) Start at nine and add nine each time.
- (a) 400, 200, 0
(b) Start at one thousand, two hundred and subtract two hundred each time.
- (a) 90, 102, 114
(b) Start at forty-two and add twelve each time.
- (a) 76, 68, 60
(b) Start at one hundred and eight and subtract eight each time.
- (a) 105, 120, 135
(b) Start at forty-five and add fifteen each time.
- (a) 110, 130, 150
(b) Start at thirty and add twenty each time.
- (a) 195, 205, 215
(b) Start at one hundred and fifty-five and add ten each time.
- (a) 300, 250, 200
(b) Starting at five hundred and subtract fifty each time.
- (a) 90, 108, 126
(b) Starting at eighteen and add eighteen each time.

18. (a) 38, 46, 54
 (b) Starting at six and add eight each time.
19. (a) 66, 75, 84
 (b) Starting at thirty and add nine each time.
20. (a) 80, 40, 0
 (b) Starting at two hundred and forty and subtract forty each time.
21. (a) 61, 55, 49
 (b) Starting at eighty-five and subtract six each time.

Exercise 21.1C



Chapter 22

Exercise 22.1A

1.
 (a) ? = 4 (b) ? = 4 (c) ? = 3 (d) ? = 4
 (e) ? = 6 (f) ? = 4 (g) ? = 9 (h) ? = 19
 (i) ? = 15 (j) ? = 6 (k) ? = 8 (l) ? = 3

- (m) ? = 6 (n) ? = 27 (o) ? = 24 (p) ? = 20
 (q) ? = 6 (r) ? = 5 (s) ? = 3 (t) ? = 13
 2.
 (a) ? = 6 (b) ? = 15 (c) ? = 15 (d) ? = 12
 (e) ? = 9 (f) ? = 7 (g) ? = 4 (h) ? = 19
 (i) ? = 41 (j) ? = 22 (k) ? = 23 (l) ? = 13
 (m) ? = 18 (n) ? = 34 (o) ? = 6 (p) ? = 33
 (q) ? = 27 (r) ? = 7 (s) ? = 41 (t) ? = 15

Exercise 22.1B

1. ? = 2 2. ? = 3 3. ? = 3 4. ? = 4
 5. ? = 3 6. ? = 5 7. ? = 3 8. ? = 3
 9. ? = 5 10. ? = 6 11. ? = 2 12. ? = 6
 13. ? = 9 14. ? = 5 15. ? = 7 16. ? = 7
 17. ? = 7 18. ? = 8 19. ? = 5 20. ? = 11

Exercise 22.2

22.1A

- (a) ? = 3 (b) ? = 13 (c) ? = 12 (d) ? = 4

22.1B

- (a) ? = 6 (b) ? = 6 (c) ? = 7 (d) ? = 12

Chapter 23

Exercise 23.1

1.

Colour	Frequency
Red	2
Blue	5
Green	4
Yellow	1

(b)

Hair Colour	Frequency
Black	3
Blonde	4
Brown	1
Red	3

(c)

Phone Type	Frequency
Apple	5
Android	3
Windows	1

(d)

Goals Scored	Frequency
0	8
1	8
2	4
3	3
4	1

(e)

Shoe Size	Frequency
1	2
2	3
3	8
4	5
5	6

(f)

Age	Frequency
10	7
11	10
12	3

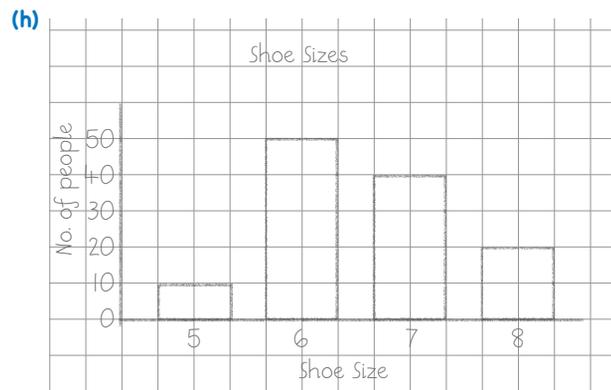
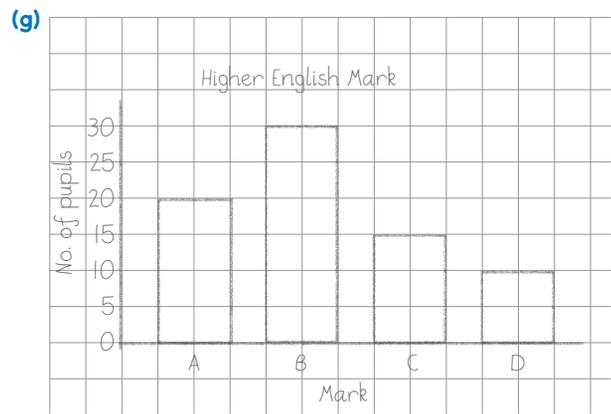
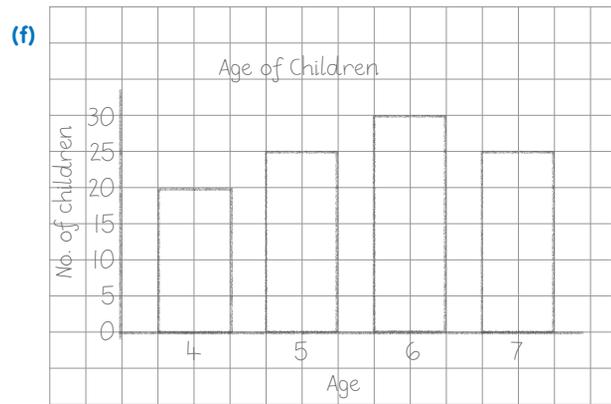
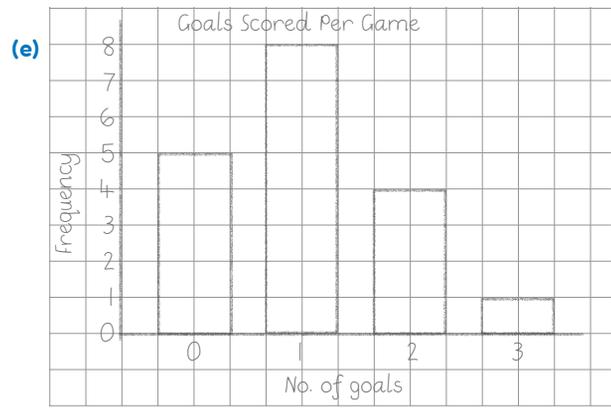
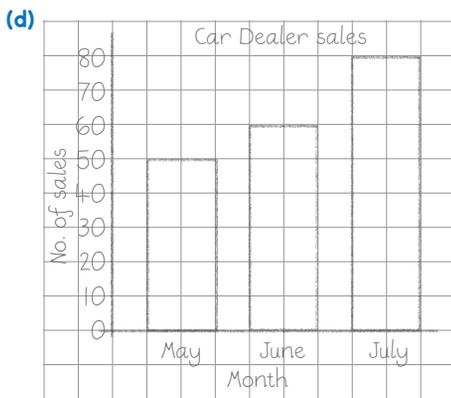
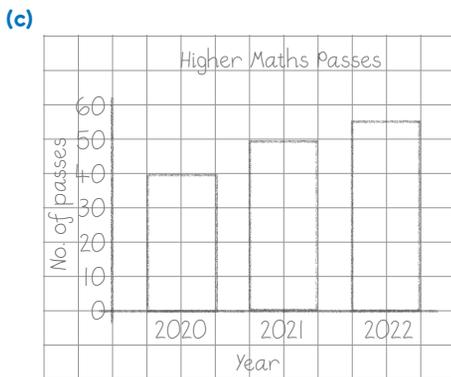
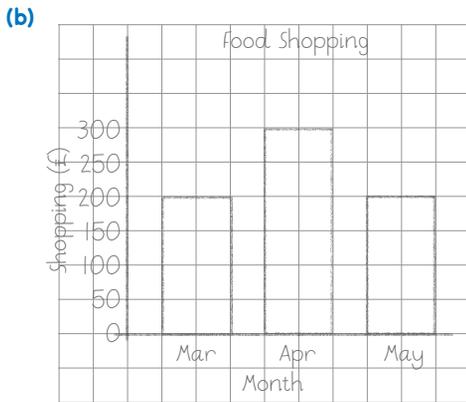
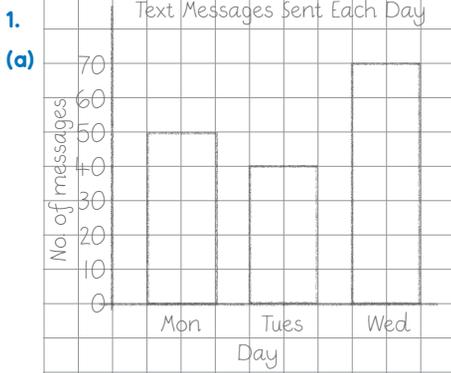
(g)

Siblings	Frequency
0	6
1	6
2	5
3	4
4	1
5	1
6	1

(h)

Dress Size	Frequency
4	2
6	2
8	4
10	7
12	3
14	3
16	2

Exercise 23.2



2.

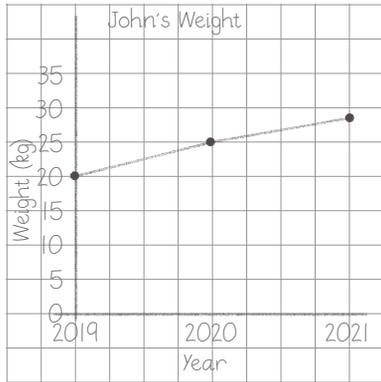
- (a)** The least number of messages were sent on Tuesday, and the most on Wednesday.
(b) April food spending was the highest.

- (c) From 2020 to 2022 exam passes increased.
- (d) From May to July car sales increased.
- (e) In most games only 1 goal is scored.
- (f) Most children are 6 years old.
- (g) Most students achieved a B grade for Higher English.
- (h) Most people were a shoe size 6.

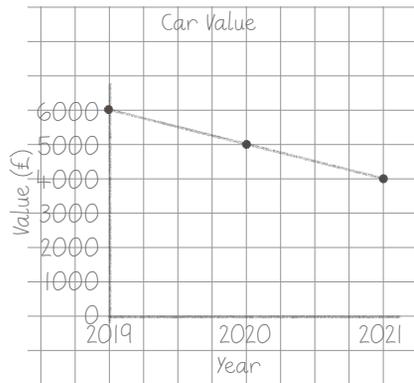
Exercise 23.3

1.

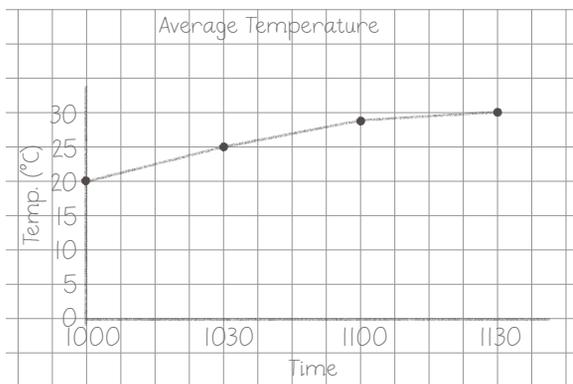
(a)



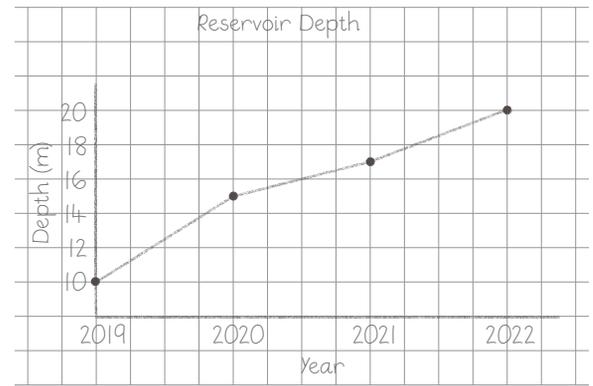
(b)



(c)



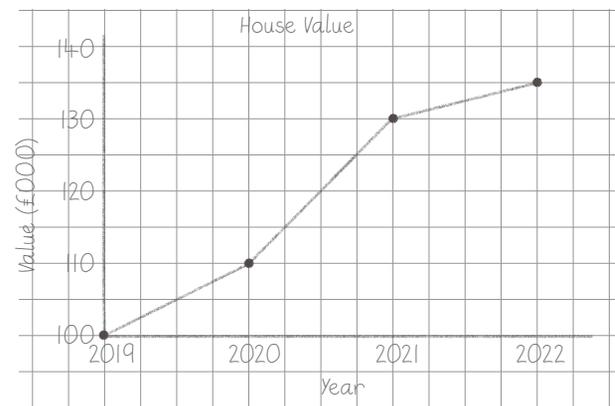
(d)



(e)



(f)



2.

- (a) John's weight increased between 2019 and 2021.
- (b) The value of the car steadily decreased each year from 2019 to 2021.
- (c) The average temperature increased between 1000 and 1130, with a faster increase between 1000 and 1030.
- (d) The reservoir continued to get deeper from 2019 to 2022, with the fastest increase in depth between 2019 and 2020.
- (e) Monthly profits continually increased from August to November, with a more rapid increase between September and October.
- (f) The house value continued to increase between 2019 and 2022, with a large jump between 2020 and 2021.

Chapter 24

Exercise 24.1

- 14
- £18
- 16:30
- 120 mm
- Obtuse
- 16, 19, 22
- 8.7
- 1, 2, 3, 6, 9, 18
- 830
- 5
- 750
- 225

Exercise 24.2

- 20
- £38
- 21:45
- 650 mm
- Acute
- 38, 42, 46
- 10.8
- 1, 2, 4, 5, 10, 20
- 350
- 6
- 910
- 896

Exercise 24.3

- 47
- 26
- 19
- £16.50
- 3.55 am
- 20 m
- South
- 73, 67, 61
- 70
- 1, 5, 7, 35
- 9000
- 7, 14, 21, 28

Exercise 24.4

- 25
- 340
- 27
- £25.50
- 6.25 pm
- 45 m
- North
- 80, 73, 66
- 40
- 1, 2, 4, 7, 14, 28
- 2000
- 6, 12, 18, 24

Exercise 25.5

- 6
- 5 hrs 45 mins
- 5 460 000
- 100
- 66.1
- 12
- 25 000 mm
- £4.74
- 1, 2, 3, 6, 7, 14, 21, 42
- Reflex
- 65
- 82.5

Exercise 25.6

- 35
- 10 hrs 20 mins
- 710 000
- 150
- 85.1
- 21
- 42 000 mm
- £10.38
- 1, 3, 13, 39
- Obtuse
- 96
- 534

Chapter 25

Exercise 25.1

- £7.47
- £2.21
- £6.15
- £9.80
- 210 minutes
- 2 hours 15 minutes
- 2 hours 10 minutes
- 0725
- 6.35 pm
- ? = 5
- ? = 3
- ? = 9
- ? = 5
- 8
- 16
- 5 m
- 4 cm
- 60mm
- 900 cm
- 10 m²

Exercise 25.2

- £8.30
- £2.11
- £8.75
- £7.60
- 150 minutes
- 2 hours 20 minutes
- 1 hour 30 minutes
- 0810
- 5.50pm
- ? = 5
- ? = 6
- ? = 8
- ? = 4
- 12
- 14
- 6 m
- 5 cm
- 70 mm
- 800 cm
- 12 m²

Exercise 25.3

- £19.00
- £4.19
- £13.57
- £11.23
- 315 minutes
- 2 hours 10 minutes
- 3 hours 15 minutes
- 0255
- 6.45 pm
- ? = 13
- ? = 25
- ? = 23
- ? = 13
- 35
- 65
- 6.7 m
- 50 cm
- 650 mm
- 9700 cm
- 30 m²

Exercise 25.4

- £18.53
- £7.23
- £12.70
- £19.93
- 435 minutes
- 2 hours 5 minutes
- 1 hour 25 minutes
- 1635
- 10:40pm
- ? = 21
- ? = 66
- ? = 41
- ? = 21
- 39
- 46
- 9.8 m
- 60 cm
- 870 mm
- 2400 cm
- 35 m²

Exercise 25.5

- £38.64
- £13.35
- £37.24
- £51.46
- 165 minutes
- 1 hour 12 minutes
- 2 hours 38 minutes
- 1949
- 8.09pm
- ? = 144
- ? = 193
- ? = 453
- ? = 61
- 43
- 70
- 9000 m
- 5.5 cm
- 29 mm
- 5.4 km
- 77 m²

Exercise 25.6

1. £49.81
2. £29.10
3. £38.21
4. £48.27
5. 285 minutes
6. 3 hours 51 minutes
7. 4 hours 48 minutes
8. 0259
9. 9.02 pm
10. ? = 128
11. ? = 36
12. ? = 406
13. ? = 430
14. 48
15. 108
16. 7000 m
17. 8.9 cm
18. 32 mm
19. 6.5 km
20. 72 m²

Chapter 26

Exercise 26.1

1. 16:45
2. 30 cm²
3. £1
4. July 28th
5. 190 mm
6. 6 squares
7. 200 ml
8. 1 hour 25 minutes
9. £60
10. 2 m
11. 56 days
12. 16.2 m²

Exercise 26.2

1. 6:35 pm
2. 28 cm²
3. £5.20
4. 27th September
5. 190 mm
6. 6 rectangles
7. 250 ml
8. 1 hour 25 minutes
9. £120
10. 4 m
11. 70 days
12. 16 m²

Exercise 26.3

1. £4.80
2. 20:30
3. £3.30
4. 3 m
5. No – arrival 18:10
6. West
7. 3 bags of marshmallows by 15 pence
8. Yes
9. 276 beads
10. December
11. 8 corners
12. 330 minutes

Exercise 26.4

1. £40.20
2. 13:00
3. £3.95
4. 5 m
5. Yes – arrival 19:40
6. West
7. 5 bags of sweets by 15 pence
8. £32.21
9. 3 pieces of art
10. June
11. 8 corners
12. 570 seconds

Exercise 26.5

1. 16:12
2. 10 cm

3. £12.13
4. 3 minutes 4 seconds
5. 6 cm²
6. 9 edges
7. 1640 mm
8. 180 degrees
9. 18 days
10. 55 ml
11. 1, 3, 6
12. 6 months

Exercise 26.6

1. 21:19
2. 11 cm
3. £10.64
4. 6 minutes 5 seconds
5. 36 cm²
6. 6 vertices
7. 4320 mm
8. Reflex angle
9. 40 cm
10. 120 ml
11. 1, 4, 9
12. 8 months