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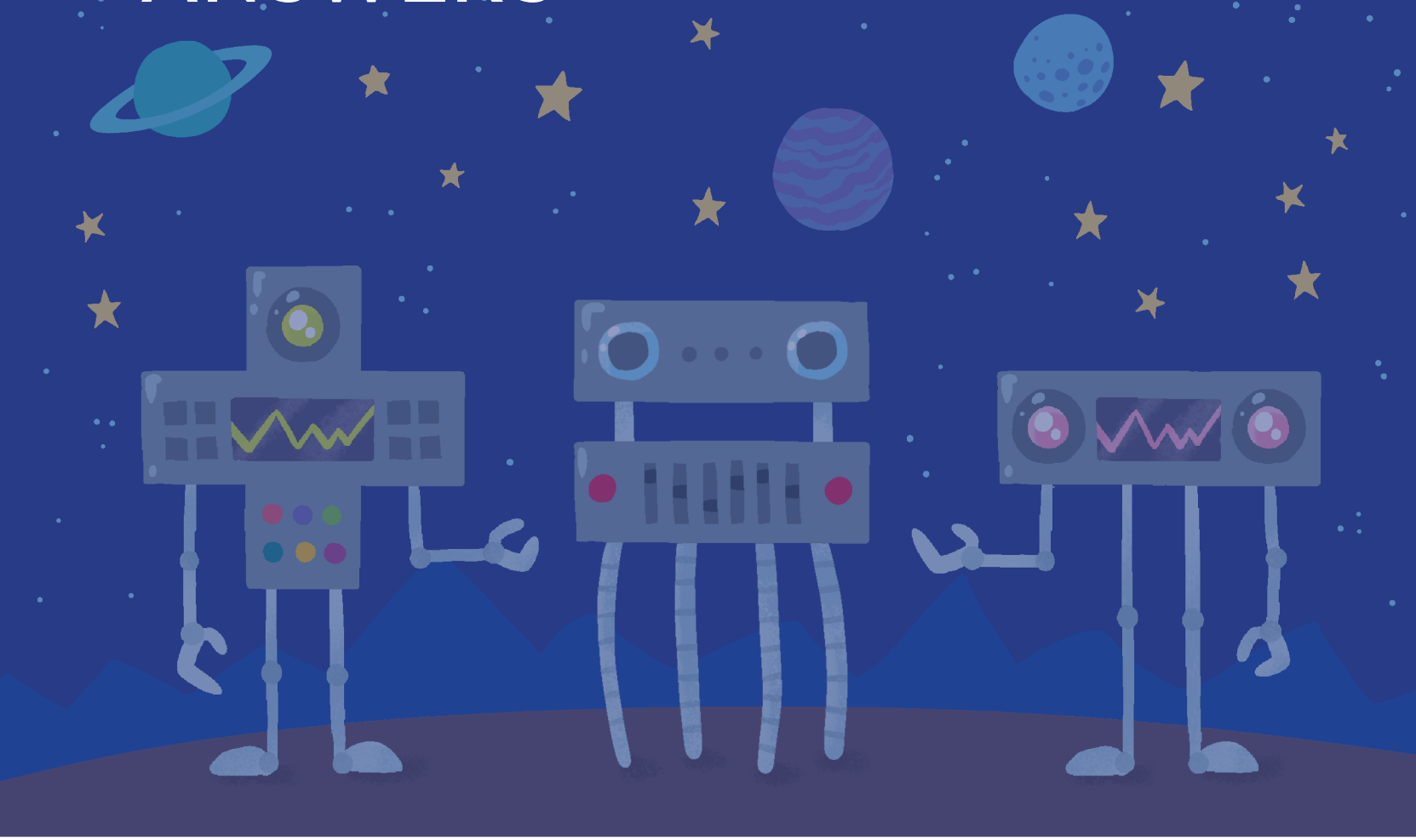
2A

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

1. Four hundred and twenty-four.
2. Three hundred and sixty-two.
3. Two hundred and seventy-three.
4. Two hundred and nine.
5. One hundred and eleven.
6. Four hundred and fifty-three.
7. Eight hundred and ninety-seven.
8. Six hundred and fifty-four.
9. One hundred and twenty-three.
10. Three hundred and forty-two.
11. Eight hundred and sixty-five.
12. One hundred and two.
13. Seven hundred and fifty-four.
14. Six hundred and one.
15. Nine hundred and seventy-five.
16. Two hundred and eleven.
17. Seven hundred and eighty-eight.
18. Two hundred and twenty-two.
19. Four hundred and sixty-seven.
20. Nine hundred and eighty-four.

Exercise 1.2B

1. One thousand and twenty-five.
2. Nine thousand, two hundred and seventy-two.
3. Three thousand, one hundred and forty-two.
4. Four thousand, five hundred and twenty-three.
5. Nine thousand, nine hundred and three.
6. Five thousand, six hundred and twenty-two.
7. Two thousand, two hundred and twenty-five.
8. Six thousand, two hundred and fifty-one.
9. Eight thousand, six hundred and two.
10. Two thousand, five hundred and forty-three.
11. Nine thousand, one hundred and fifteen.
12. One thousand and two.
13. Seven thousand, nine hundred and fifty-four.
14. Four thousand, two hundred and one.
15. Nine thousand and one.
16. Two thousand, three hundred and forty-four.
17. Seven thousand and five.
18. Two thousand and twenty.
19. Four thousand, one hundred and twenty.
20. Eight thousand, three hundred and sixty.

Exercise 1.3A

1. Two hundreds, four tens and one one.
2. One hundred, seven tens and three ones.
3. Three hundreds, one ten and one five.
4. One hundred, seven tens and two ones.
5. Two hundreds and five tens.
6. Three hundreds, two tens and two ones.
7. Five hundreds, two tens and one one.
8. Six hundreds, one ten and two ones.
9. Two hundreds, seven tens and three ones.
10. One hundred, seven tens and one one.
11. Three hundreds and one one.
12. Four hundreds.
13. Two tens and nine ones.
14. Nine tens and one one.
15. 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

1. 6214, 6222, 6342, 7117
2. 9111, 9118, 9181, 9800
3. 1712, 1721, 1887, 1999
4. 5445, 5454, 5455, 5545
5. 2113, 2123, 2231, 2330
6. 4441, 4533, 4534, 4542
7. 1000, 1019, 1216, 1261
8. 142, 1444, 4141, 4414
9. 8870, 8890, 8891, 8919
10. 7632, 7637, 7701, 7791
11. 6235, 6322, 6325, 6352
12. 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)** 43
(f) 43	**(g)** 58	**(h)** 70	**(i)** 67	**(j)** 35
(k) 19	**(l)** 15	**(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) 68	**(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)** 64

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

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

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

Exercise 5.1B

1. 15, 30, 45, 60, 75, 90, 105, 120
2. 30, 60, 90, 120, 150, 180, 210, 240
3. 45, 90, 135, 180, 225, 270, 315, 360
4. 23, 46, 69, 92, 115, 138, 161, 184
5. 50, 100, 150, 200, 250, 300, 350, 400
6. 70, 140, 210, 280, 350, 420, 490, 560
7. 88, 176, 264, 352, 440, 528, 616, 704
8. 92, 184, 276, 368, 460, 552, 644, 736
9. 62, 124, 186, 248, 310, 372, 434, 496
10. 11, 22, 33, 44, 55, 66, 77, 88

Exercise 5.2

1. 1, 2, 4, 5, 10, 20
2. 1, 2, 3, 4, 6, 9, 12, 18, 36
3. 1, 2, 4, 8
4. 1, 2, 4, 8, 16
5. 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
6. 1, 2, 7, 14
7. 1, 3, 5, 15
8. 1, 5, 25
9. 1, 2, 4, 8, 16, 32
10. 1, 3, 7, 9, 21, 63
11. 1, 17
12. 1, 3, 5, 9, 15, 45
13. 1, 2, 3, 6
14. 1, 5, 7, 35
15. 1, 2, 3, 6, 9, 18, 27, 54
16. 1, 3, 9, 27, 81
17. 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
18. 1, 2, 4
19. 1, 2, 11, 22
20. 1, 2, 4, 7, 14, 28

Exercise 5.3

5.1

(a) 9, 18, 27, 36, 45, 54, 63, 72
(b) 5, 10, 15, 20, 25, 30, 35, 40
(c) 6, 12, 18, 24, 30, 36, 42, 48
(d) 2, 4, 6, 8, 10, 12, 14, 16.
(e) 7, 14, 21, 28, 35, 42, 49, 56
(f) 3, 6, 9, 12, 15, 18, 21, 24

5.2

(a) 1, 2, 7, 14
(b) 1, 5, 25
(c) 1, 31
(d) 1, 2, 4, 5, 8, 10, 20, 40
(e) 1, 7
(f) 1, 3, 5, 15

Chapter 6

Exercise 6.1A

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

Exercise 6.1B

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

Exercise 6.1C

1.
(a) Any 1 box coloured
(b) Any 1 box coloured
(c) Any 1 box coloured
(d) Any 2 boxes coloured
(e) Any 3 boxes coloured
(f) Any 2 boxes coloured
(g) Any 1 box coloured
(h) Any 5 boxes coloured
(i) Any 2 boxes coloured
(j) Any 4 boxes coloured

2.
(a) Any 5 boxes coloured
(b) Any 7 boxes coloured
(c) Any 5 boxes coloured
(d) Any 3 boxes coloured
(e) Any 7 boxes coloured
(f) Any 11 boxes coloured

Exercise 6.2A (possible answers)

1. $\frac{2}{4}$
2. $\frac{2}{8}$
3. $\frac{3}{6}$
4. $\frac{2}{12}$
5. $\frac{2}{10}$
6. $\frac{4}{10}$
7. $\frac{4}{8}$
8. $\frac{4}{6}$
9. $\frac{4}{12}$
10. $\frac{1}{4}$
11. $\frac{6}{8}$
12. $\frac{6}{10}$
13. $\frac{6}{12}$
14. $\frac{8}{12}$
15. $\frac{8}{10}$

Exercise 6.2B (possible answers)

1.
(a) $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}$
(b) $\frac{2}{10}, \frac{3}{15}, \frac{4}{20}$
(c) $\frac{2}{12}, \frac{3}{18}, \frac{4}{24}$
(d) $\frac{2}{8}, \frac{3}{12}, \frac{4}{16}$
(e) $\frac{2}{14}, \frac{3}{21}, \frac{4}{28}$
(f) $\frac{2}{16}, \frac{3}{24}, \frac{4}{32}$
(g) $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}$
(h) $\frac{2}{20}, \frac{3}{30}, \frac{4}{40}$
(i) $\frac{2}{18}, \frac{3}{27}, \frac{4}{36}$
(j) $\frac{2}{24}, \frac{3}{36}, \frac{4}{48}$

2.
(a) $\frac{4}{6}, \frac{6}{9}, \frac{10}{15}$
(b) $\frac{4}{8}, \frac{6}{12}, \frac{8}{16}$
(c) $\frac{6}{8}, \frac{9}{12}, \frac{12}{16}$
(d) $\frac{6}{10}, \frac{9}{15}, \frac{12}{20}$
(e) $\frac{6}{12}, \frac{9}{18}, \frac{12}{24}$
(f) $\frac{8}{10}, \frac{12}{15}, \frac{16}{20}$
(g) $\frac{8}{12}, \frac{12}{18}, \frac{16}{24}$
(h) $\frac{10}{12}, \frac{15}{18}, \frac{20}{24}$
(i) $\frac{10}{14}, \frac{15}{21}, \frac{20}{28}$
(j) $\frac{10}{16}, \frac{15}{24}, \frac{20}{32}$
(k) $\frac{12}{14}, \frac{18}{21}, \frac{24}{28}$
(l) $\frac{14}{16}, \frac{21}{24}, \frac{28}{32}$
(m) $\frac{14}{18}, \frac{21}{27}, \frac{28}{36}$
(n) $\frac{16}{18}, \frac{24}{27}, \frac{32}{36}$
(o) $\frac{4}{10}, \frac{6}{15}, \frac{8}{20}$

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) $\frac{10}{10}$ (b) 1 10. (a) $\frac{2}{10}$ (b) 0.2

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) $\frac{0}{10}$ (b) 0 12. (a) $\frac{4}{10}$ (b) 0.4

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

1. Two tenths.
2. Nine tenths.
3. Eight tenths.
4. Three tenths.
5. Seven tenths.
6. Five tenths.
7. Four tenths.
8. One tenth.
9. Six tenths.
10. Two units and four tenths.
11. Three units and two tenths.
12. Five units and five tenths.
13. Four units and four tenths.
14. Three units and six tenths.
15. One unit and nine tenths.
16. Seven units and three tenths.
17. Nine units and one tenth.
18. Four units and six tenths.
19. One unit and eight tenths.
20. 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

1.

(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

2.

(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

1.

(a) 5.2 (b) 6.5 (c) 3.1 (d) 4.2 (e) 2.8
(f) 3.7 (g) 3.3 (h) 0.5 (i) 6.0 (j) 3.1
(k) 4.8 (l) 2.8 (m) 2.9 (n) 2.7 (o) 0.2

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. Sophie scored higher by $\frac{3}{10}$
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 boxes
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 cards
6. 4029 km
7. £224
8. £111.93
9. 3185 calories
10. 72 kg
11. 36 lengths
12. 4632 minutes

Exercise 8.6

1. 55 097 loaves
2. £4175
3. £1605
4. 40 000
5. 65 cards
6. 3867 km
7. £392
8. £116.82
9. 2464 calories
10. 71.5 kg
11. 16 lengths
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.** £16.71 **3.** £14.78 **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 individual 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) 6 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) 7 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) 1hr 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 very 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

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)** 1 hr 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

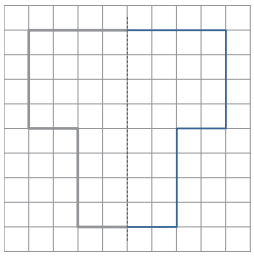
Chapter 16

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.



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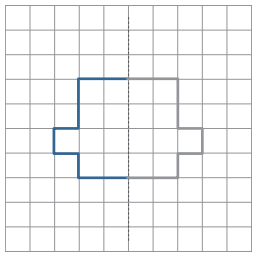

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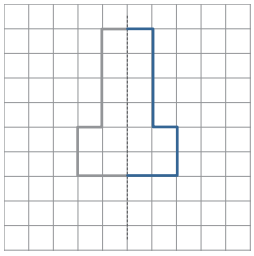

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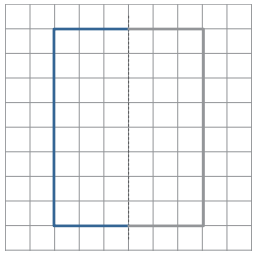

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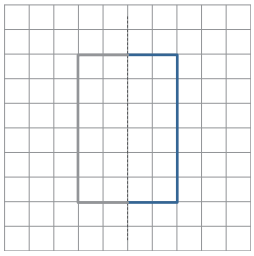

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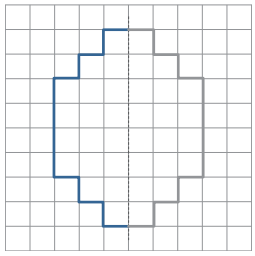

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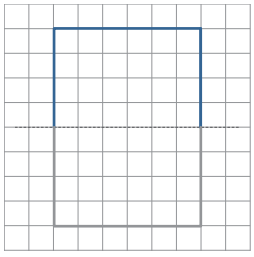

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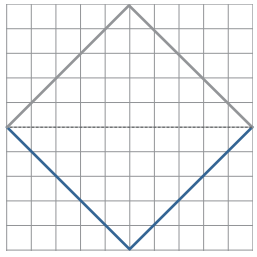

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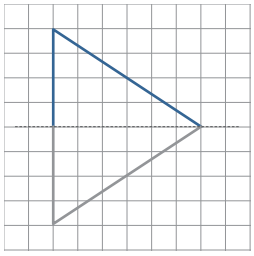

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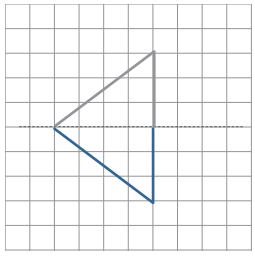

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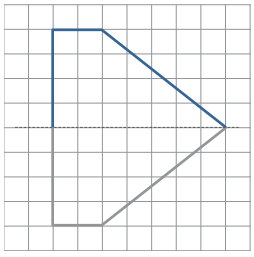

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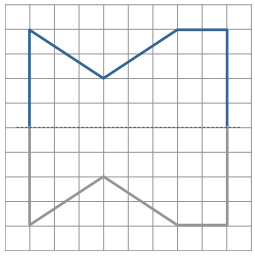
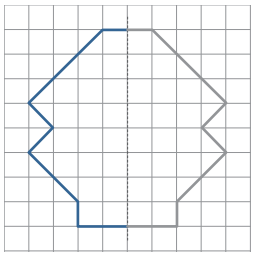
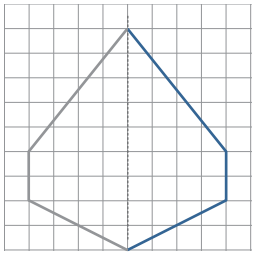
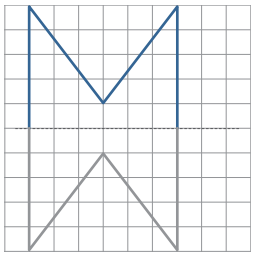


13. 

14. 

15. 

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. 8 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

Answers for this exercise will vary.

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

17.3 Answers for these questions will vary.

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

Answers for this exercise will vary.

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

(a) Cylinder	(b) 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, 5)	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, 4)	D(11, 11)	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 answers

2.

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

3.

(d) Cuboid

4.

(d) Triangular Prism

5.

(d) Square-based pyramid

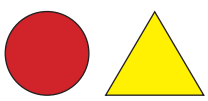
Chapter 20

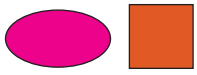
Exercise 20.1 Answers for this exercise may vary.

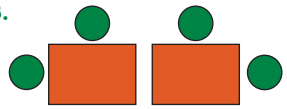
1. Go east on Anne Drive. Pass three streets. The garage is on the right.
2. Go east on Anne Drive. Pass four streets and turn left (north) on William Road. The Primary School is on the right.
3. Go east on Anne Drive. Pass three streets and turn left (north) onto Elizabeth Drive. Take the second right (east) on to Charles Street. The shop is on the right.
4. 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.
5. 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.
6. 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.
7. Go south on Elizabeth Drive. Take the first right (west) onto Charles Street. Pass three streets and the Cafe is on the right.
8. 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.
9. 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.
10. 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.

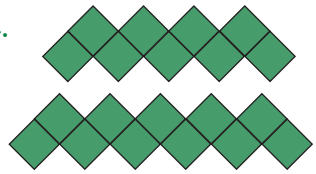
Chapter 21

Exercise 21.1A

1. 

2. 

3. 

4. 

Exercise 21.1B

1. **(a)** 12, 14, 16
   (b) Start at four and add two each time.
2. **(a)** 15, 18, 21
   (b) Start at three and add three each time.
3. **(a)** 47, 53, 59
   (b) Start at twenty-three and add six each time.
4. **(a)** 22, 19, 16
   (b) Start at thirty-four and subtract three each time.
5. **(a)** 65, 70, 75
   (b) Start at forty-five and add five each time.
6. **(a)** 68, 66, 64
   (b) Start at seventy-six and subtract two each time.
7. **(a)** 505, 606, 707
   (b) Start at one hundred and one and add one hundred and one each time.
8. **(a)** 300, 200, 100
   (b) Start at seven hundred and subtract one hundred each time.
9. **(a)** 45, 54, 63
   (b) Start at nine and add nine each time.
10. **(a)** 400, 200, 0
    (b) Start at one thousand, two hundred and subtract two hundred each time.
11. **(a)** 90, 102, 114
    (b) Start at forty-two and add twelve each time.
12. **(a)** 76, 68, 60
    (b) Start at one hundred and eight and subtract eight each time.
13. **(a)** 105, 120, 135
    (b) Start at forty-five and add fifteen each time.
14. **(a)** 110, 130, 150
    (b) Start at thirty and add twenty each time.
15. **(a)** 195, 205, 215
    (b) Start at one hundred and fifty-five and add ten each time.
16. **(a)** 300, 250, 200
    (b) Starting at five hundred and subtract fifty each time.
17. **(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

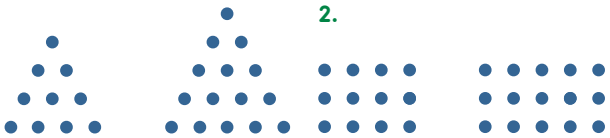
(b) Starting at two hundred and forty and subtract forty each time.

21. **(a)** 61, 55, 49

(b) Starting at eighty-five and subtract six each time.

Exercise 21.1C

1.

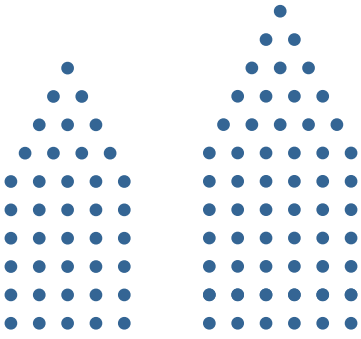


2.

3.

4.

5.



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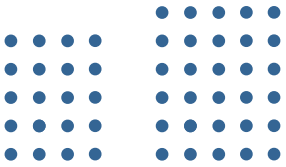


Chapter 22

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.

(a)

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

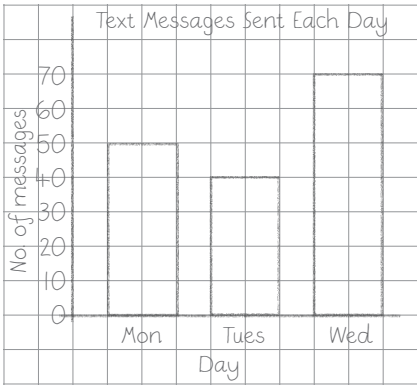
(h)

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

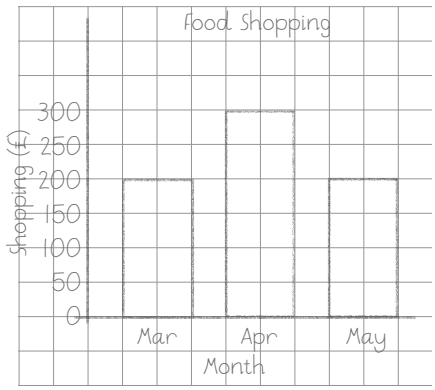
Exercise 23.2

1.

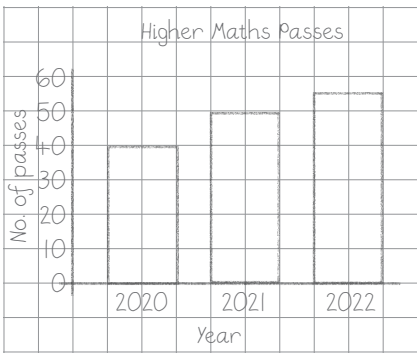
(a)



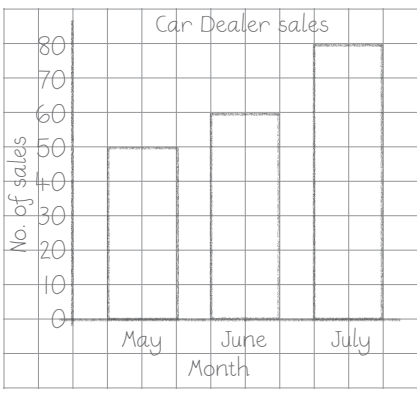
(b)



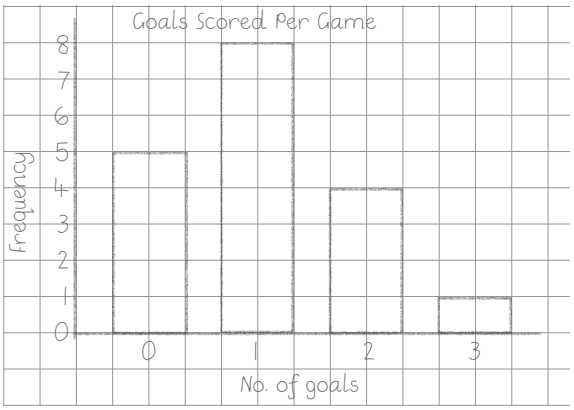
(c)



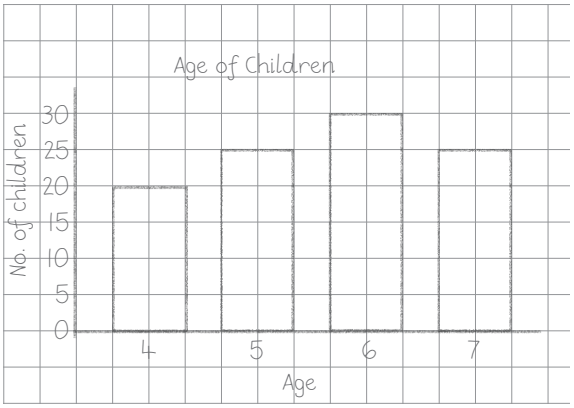
(d)



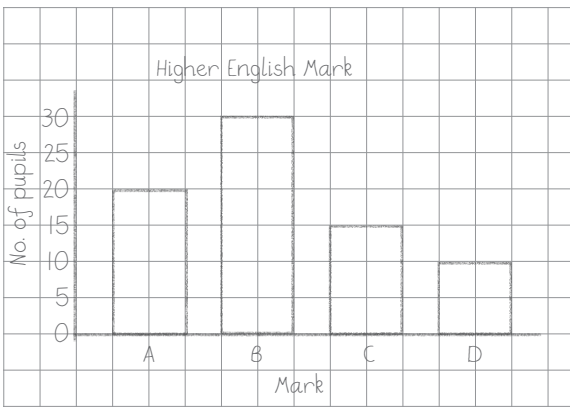
(e)



(f)



(g)



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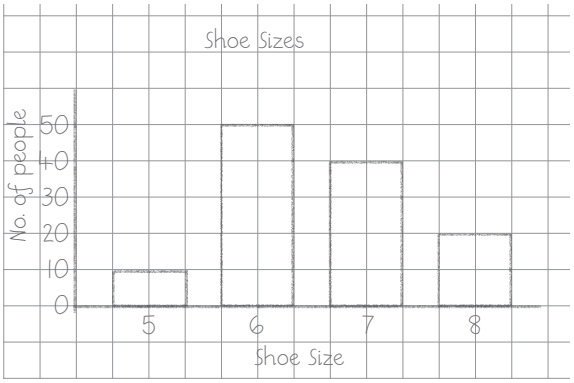


2.

(a) The least number of messages were sent on Tuesday, and the most on Wednesday.

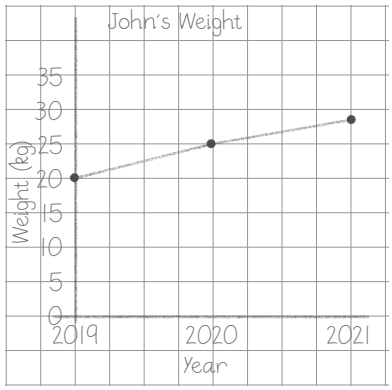
(b) April food spending was the highest.

(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.

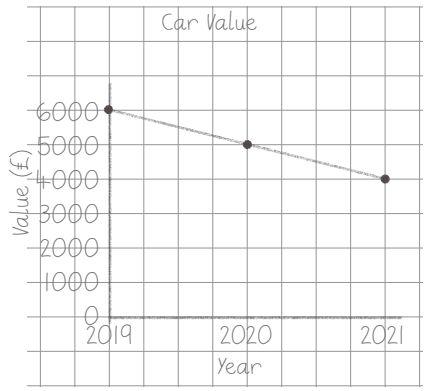
Exercise 23.3

1.

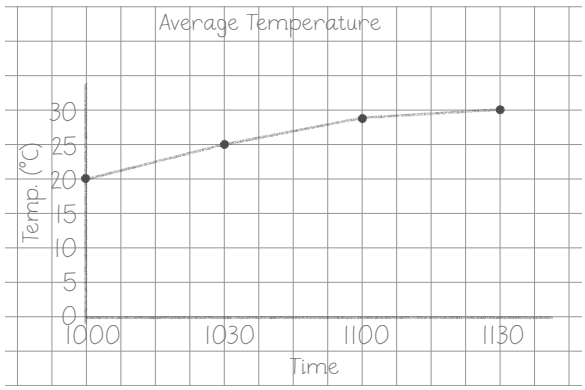
(a)



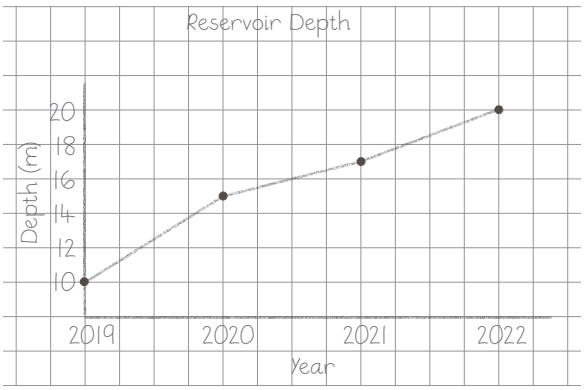
(b)



(c)



(d)



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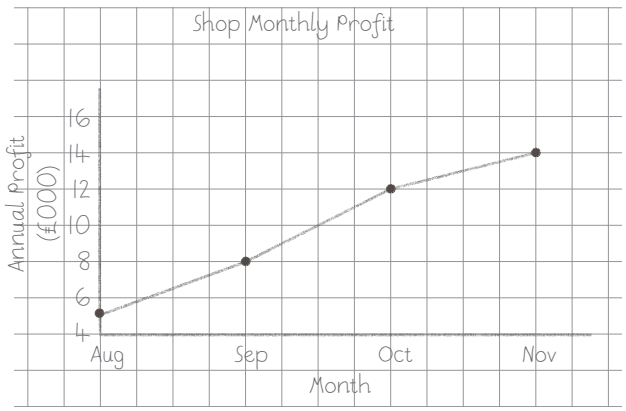
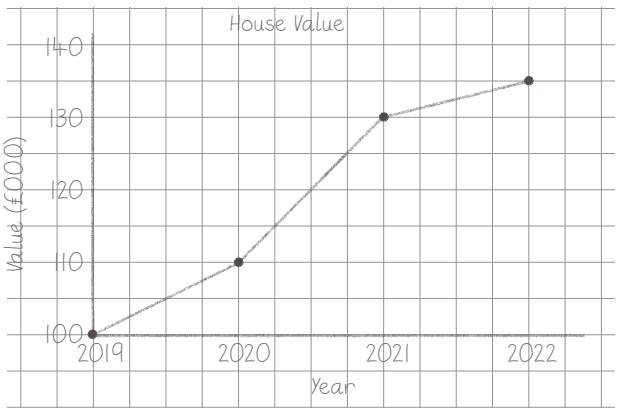


(f)



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

1. 14
2. £18
3. 16:30
4. 120 mm
5. Obtuse
6. 16, 19, 22
7. 8.7
8. 1, 2, 3, 6, 9, 18
9. 830
10. 5
11. 750
12. 225

Exercise 24.2

1. 20
2. £38
3. 21:45
4. 650 mm
5. Acute
6. 38, 42, 46
7. 10.8
8. 1, 2, 4, 5, 10, 20
9. 350
10. 6
11. 910
12. 896

Exercise 24.3

1. 47
2. 26
3. 19
4. £16.50
5. 3.55 am
6. 20 m
7. South
8. 73, 67, 61
9. 70
10. 1, 5, 7, 35
11. 9000
12. 7, 14, 21, 28

Exercise 24.4

1. 25
2. 340
3. 27
4. £25.50
5. 6.25 pm
6. 45 m
7. North
8. 80, 73, 66
9. 40
10. 1,2,4,7,14,28
11. 2000
12. 6, 12, 18, 24

Exercise 24.5

1. 6
2. 5 hrs 45 mins
3. 5 460 000
4. 100
5. 66.1
6. 12
7. 25 000 mm
8. £4.74
9. 1, 2, 3, 6, 7, 14, 21, 42
10. Reflex
11. 65
12. 82.5

Exercise 24.6

1. 35
2. 10 hrs 20 mins
3. 710 000
4. 150
5. 85.1
6. 21
7. 42 000 mm
8. £10.38
9. 1, 3, 13, 39
10. Obtuse
11. 96
12. 534

Chapter 25

Exercise 25.1

1. £7.47
2. £2.21
3. £6.15
4. £9.80
5. 210 minutes
6. 2 hours 15 minutes
7. 2 hours 10 minutes
8. 0725
9. 6.35 pm
10. ? = 5
11. ? = 3
12. ? = 9
13. ? = 5
14. 8
15. 16
16. 5 m
17. 4 cm
18. 60mm
19. 900 cm
20. 10 m^2

Exercise 25.2

1. £8.30
2. £2.11
3. £8.75
4. £7.60
5. 150 minutes
6. 2 hours 20 minutes
7. 1 hour 30 minutes
8. 0810
9. 5.50pm
10. ? = 5
11. ? = 6
12. ? = 8
13. ? = 4
14. 12
15. 14
16. 6 m
17. 5 cm
18. 70 mm
19. 800 cm
20. 12 m^2

Exercise 25.3

1. £19.00
2. £4.19
3. £13.57
4. £11.23
5. 315 minutes
6. 2 hours 10 minutes
7. 3 hours 15 minutes
8. 0255
9. 6.45 pm
10. ? = 13
11. ? = 25
12. ? = 23
13. ? = 13
14. 35
15. 65
16. 6.7 m
17. 50 cm
18. 650 mm
19. 9700 cm
20. 30 m^2

Exercise 25.4

1. £18.53
2. £7.23
3. £12.70
4. £19.93
5. 435 minutes
6. 2 hours 5 minutes
7. 1 hour 25 minutes
8. 1635
9. 10:40pm
10. ? = 21
11. ? = 66
12. ? = 41
13. ? = 21
14. 39
15. 46
16. 9.8 m
17. 60 cm
18. 870 mm
19. 2400 cm
20. 35 m^2

Exercise 25.5

1. £38.64
2. £13.35
3. £37.24
4. £51.46
5. 165 minutes
6. 1 hour 12 minutes
7. 2 hours 38 minutes
8. 1949
9. 8.09pm
10. ? = 144
11. ? = 193
12. ? = 453
13. ? = 61
14. 43
15. 70
16. 9000 m
17. 5.5 cm
18. 29 mm
19. 5.4 km
20. 77 m^2

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 m^2

Chapter 26

Exercise 26.1

1. 16:45
2. 30 cm^2
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 m^2

Exercise 26.2

1. 6:35 pm
2. 28 cm^2
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 m^2

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 vertices (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 vertices (corners)
12. 570 seconds

Exercise 26.5

1. 16:12
2. 10 cm
3. £12.13
4. 3 minutes 4 seconds
5. 6 cm^2
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 cm^2
6. 6 vertices
7. 4320 mm
8. Reflex angle
9. 40 cm
10. 120 ml
11. 1, 4, 9
12. 8 months