

2. a) 86°F b) 41°F c) 71.6°F or 72°F
 d) 62.6°F or 63°F
3. a) 8.5km/hour b) 30km (allow 1 mark for evidence of correct working but incorrect answer)
 c) 5 hours (allow 1 mark for evidence of correct working but incorrect answer)

Trial and improvement (pages 26–27)

1. $x = 3.4$ (2 marks; allow 1 mark for a partially completed table with some correct substitutions but incorrect answer)
2. $x = 11.3$ (allow 1 mark for a partially completed table with some correct substitutions but incorrect answer)
3. $x = 6.9$ (allow 1 mark for a partially completed table with some correct substitutions but incorrect answer)
4. $x = 3.6\text{cm}$ (allow 1 mark for a partially completed table with some correct substitutions but incorrect answer)

Solving simple linear equations (pages 28–29)

1. a) 6 b) 8 c) 3 d) 5 e) 1
2. a) 4 b) 2 c) 7 d) 3 (each part worth 2 marks; allow 1 mark for evidence of

2

answer)

3. $x = 5$, areas =
Finding a rule for a sequence (page 31)

1. a) 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234, 237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270, 273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303, 306, 309, 312, 315, 318, 321, 324, 327, 330, 333, 336, 339, 342, 345, 348, 351, 354, 357, 360, 363, 366, 369, 372, 375, 378, 381, 384, 387, 390, 393, 396, 399, 402, 405, 408, 411, 414, 417, 420, 423, 426, 429, 432, 435, 438, 441, 444, 447, 450, 453, 456, 459, 462, 465, 468, 471, 474, 477, 480, 483, 486, 489, 492, 495, 498, 501, 504, 507, 510, 513, 516, 519, 522, 525, 528, 531, 534, 537, 540, 543, 546, 549, 552, 555, 558, 561, 564, 567, 570, 573, 576, 579, 582, 585, 588, 591, 594, 597, 600, 603, 606, 609, 612, 615, 618, 621, 624, 627, 630, 633, 636, 639, 642, 645, 648, 651, 654, 657, 660, 663, 666, 669, 672, 675, 678, 681, 684, 687, 690, 693, 696, 699, 702, 705, 708, 711, 714, 717, 720, 723, 726, 729, 732, 735, 738, 741, 744, 747, 750, 753, 756, 759, 762, 765, 768, 771, 774, 777, 780, 783, 786, 789, 792, 795, 798, 801, 804, 807, 810, 813, 816, 819, 822, 825, 828, 831, 834, 837, 840, 843, 846, 849, 852, 855, 858, 861, 864, 867, 870, 873, 876, 879, 882, 885, 888, 891, 894, 897, 900, 903, 906, 909, 912, 915, 918, 921, 924, 927, 930, 933, 936, 939, 942, 945, 948, 951, 954, 957, 960, 963, 966, 969, 972, 975, 978, 981, 984, 987, 990, 993, 996, 999, 1002, 1005, 1008, 1011, 1014, 1017, 1020, 1023, 1026, 1029, 1032, 1035, 1038, 1041, 1044, 1047, 1050, 1053, 1056, 1059, 1062, 1065, 1068, 1071, 1074, 1077, 1080, 1083, 1086, 1089, 1092, 1095, 1098, 1101, 1104, 1107, 1110, 1113, 1116, 1119, 1122, 1125, 1128, 1131, 1134, 1137, 1140, 1143, 1146, 1149, 1152, 1155, 1158, 1161, 1164, 1167, 1170, 1173, 1176, 1179, 1182, 1185, 1188, 1191, 1194, 1197, 1200, 1203, 1206, 1209, 1212, 1215, 1218, 1221, 1224, 1227, 1230, 1233, 1236, 1239, 1242, 1245, 1248, 1251, 1254, 1257, 1260, 1263, 1266, 1269, 1272, 1275, 1278, 1281, 1284, 1287, 1290, 1293, 1296, 1299, 1302, 1305, 1308, 1311, 1314, 1317, 1320, 1323, 1326, 1329, 1332, 1335, 1338, 1341, 1344, 1347, 1350, 1353, 1356, 1359, 1362, 1365, 1368, 1371, 1374, 1377, 1380, 1383, 1386, 1389, 1392, 1395, 1398, 1401, 1404, 1407, 1410, 1413, 1416, 1419, 1422, 1425, 1428, 1431, 1434, 1437, 1440, 1443, 1446, 1449, 1452, 1455, 1458, 1461, 1464, 1467, 1470, 1473, 1476, 1479, 1482, 1485, 1488, 1491, 1494, 1497, 1500, 1503, 1506, 1509, 1512, 1515, 1518, 1521, 1524, 1527, 1530, 1533, 1536, 1539, 1542, 1545, 1548, 1551, 1554, 1557, 1560, 1563, 1566, 1569, 1572, 1575, 1578, 1581, 1584, 1587, 1590, 1593, 1596, 1599, 1602, 1605, 1608, 1611, 1614, 1617, 1620, 1623, 1626, 1629, 1632, 1635, 1638, 1641, 1644, 1647, 1650, 1653, 1656, 1659, 1662, 1665, 1668, 1671, 1674, 1677, 1680, 1683, 1686, 1689, 1692, 1695, 1698, 1701, 1704, 1707, 1710, 1713, 1716, 1719, 1722, 1725, 1728, 1731, 1734, 1737, 1740, 1743, 1746, 1749, 1752, 1755, 1758, 1761, 1764, 1767, 1770, 1773, 1776, 1779, 1782, 1785, 1788, 1791, 1794, 1797, 1800, 1803, 1806, 1809, 1812, 1815, 1818, 1821, 1824, 1827, 1830, 1833, 1836, 1839, 1842, 1845, 1848, 1851, 1854, 1857, 1860, 1863, 1866, 1869, 1872, 1875, 1878, 1881, 1884, 1887, 1890, 1893, 1896, 1899, 1902, 1905, 1908, 1911, 1914, 1917, 1920, 1923, 1926, 1929, 1932, 1935, 1938, 1941, 1944, 1947, 1950, 1953, 1956, 1959, 1962, 1965, 1968, 1971, 1974, 1977, 1980, 1983, 1986, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, 2019, 2022, 2025, 2028, 2031, 2034, 2037, 2040, 2043, 2046, 2049, 2052, 2055, 2058, 2061, 2064, 2067, 2070, 2073, 2076, 2079, 2082, 2085, 2088, 2091, 2094, 2097, 2100, 2103, 2106, 2109, 2112, 2115, 2118, 2121, 2124, 2127, 2130, 2133, 2136, 2139, 2142, 2145, 2148, 2151, 2154, 2157, 2160, 2163, 2166, 2169, 2172, 2175, 2178, 2181, 2184, 2187, 2190, 2193, 2196, 2199, 2202, 2205, 2208, 2211, 2214, 2217, 2220, 2223, 2226, 2229, 2232, 2235, 2238, 2241, 2244, 2247, 2250, 2253, 2256, 2259, 2262, 2265, 2268, 2271, 2274, 2277, 2280, 2283, 2286, 2289, 2292, 2295, 2298, 2301, 2304, 2307, 2310, 2313, 2316, 2319, 2322, 2325, 2328, 2331, 2334, 2337, 2340, 2343, 2346, 2349, 2352, 2355, 2358, 2361, 2364, 2367, 2370, 2373, 2376, 2379, 2382, 2385, 2388, 2391, 2394, 2397, 2400, 2403, 2406, 2409, 2412, 2415, 2418, 2421, 2424, 2427, 2430, 2433, 2436, 2439, 2442, 2445, 2448, 2451, 2454, 2457, 2460, 2463, 2466, 2469, 2472, 2475, 2478, 2481, 2484, 2487, 2490, 2493, 2496, 2499, 2502, 2505, 2508, 2511, 2514, 2517, 2520, 2523, 2526, 2529, 2532, 2535, 2538, 2541, 2544, 2547, 2550, 2553, 2556, 2559, 2562, 2565, 2568, 2571, 2574, 2577, 2580, 2583, 2586, 2589, 2592, 2595, 2598, 2601, 2604, 2607, 2610, 2613, 2616, 2619, 2622, 2625, 2628, 2631, 2634, 2637, 2640, 2643, 2646, 2649, 2652, 2655, 2658, 2661, 2664, 2667, 2670, 2673, 2676, 2679, 2682, 2685, 2688, 2691, 2694, 2697, 2700, 2703, 2706, 2709, 2712, 2715, 2718, 2721, 2724, 2727, 2730, 2733, 2736, 2739, 2742, 2745, 2748, 2751, 2754, 2757, 2760, 2763, 2766, 2769, 2772, 2775, 2778, 2781, 2784, 2787, 2790, 2793, 2796, 2799, 2802, 2805, 2808, 2811, 2814, 2817, 2820, 2823, 2826, 2829, 2832, 2835, 2838, 2841, 2844, 2847, 2850, 2853, 2856, 2859, 2862, 2865, 2868, 2871, 2874, 2877, 2880, 2883, 2886, 2889, 2892, 2895, 2898, 2901, 2904, 2907, 2910, 2913, 2916, 2919, 2922, 2925, 2928, 2931, 2934, 2937, 2940, 2943, 2946, 2949, 2952, 2955, 2958, 2961, 2964, 2967, 2970, 2973, 2976, 2979, 2982, 2985, 2988, 2991, 2994, 2997, 3000, 3003, 3006, 3009, 3012, 3015, 3018, 3021, 3024, 3027, 3030, 3033, 3036, 3039, 3042, 3045, 3048, 3051, 3054, 3057, 3060, 3063, 3066, 3069, 3072, 3075, 3078, 3081, 3084, 3087, 3090, 3093, 3096, 3099, 3102, 3105, 3108, 3111, 3114, 3117, 3120, 3123, 3126, 3129, 3132, 3135, 3138, 3141, 3144, 3147, 3150, 3153, 3156, 3159, 3162, 3165, 3168, 3171, 3174, 3177, 3180, 3183, 3186, 3189, 3192, 3195, 3198, 3201, 3204, 3207, 3210, 3213, 3216, 3219, 3222, 3225, 3228, 3231, 3234, 3237, 3240, 3243, 3246, 3249, 3252, 3255, 3258, 3261, 3264, 3267, 3270, 3273, 3276, 3279, 3282, 3285, 3288, 3291, 3294, 3297, 3300, 3303, 3306, 3309, 3312, 3315, 3318, 3321, 3324, 3327, 3330, 3333, 3336, 3339, 3342, 3345, 3348, 3351, 3354, 3357, 3360, 3363, 3366, 3369, 3372, 3375, 3378, 3381, 3384, 3387, 3390, 3393, 3396, 3399, 3402, 3405, 3408, 3411, 3414, 3417, 3420, 3423, 3426, 3429, 3432, 3435, 3438, 3441, 3444, 3447, 3450, 3453, 3456, 3459, 3462, 3465, 3468, 3471, 3474, 3477, 3480, 3483, 3486, 3489, 3492, 3495, 3498, 3501, 3504, 3507, 3510, 3513, 3516, 3519, 3522, 3525, 3528, 3531, 3534, 3537, 3540, 3543, 3546, 3549, 3552, 3555, 3558, 3561, 3564, 3567, 3570, 3573, 3576, 3579, 3582, 3585, 3588, 3591, 3594, 3597, 3600, 3603, 3606, 3609, 3612, 3615, 3618, 3621, 3624, 3627, 3630, 3633, 3636, 3639, 3642, 3645, 3648, 3651, 3654, 3657, 3660, 3663, 3666, 3669, 3672, 3675, 3678, 3681, 3684, 3687, 3690, 3693, 3696, 3699, 3702, 3705, 3708, 3711, 3714, 3717, 3720, 3723, 3726, 3729, 3732, 3735, 3738, 3741, 3744, 3747, 3750, 3753, 3756, 3759, 3762, 3765, 3768, 3771, 3774, 3777, 3780, 3783, 3786, 3789, 3792, 3795, 3798, 3801, 3804, 3807, 3810, 3813, 3816, 3819, 3822, 3825, 3828, 3831, 3834, 3837, 3840, 3843, 3846, 3849, 3852, 3855, 3858, 3861, 3864, 3867, 3870, 3873, 3876, 3879, 3882, 3885, 3888, 3891, 3894, 3897, 3900, 3903, 3906, 3909, 3912, 3915, 3918, 3921, 3924, 3927, 3930, 3933, 3936, 3939, 3942, 3945, 3948, 3951, 3954, 3957, 3960, 3963, 3966, 3969, 3972, 3975, 3978, 3981, 3984, 3987, 3990, 3993, 3996, 4000, 4003, 4006, 4009, 4012, 4015, 4018, 4021, 4024, 4027, 4030, 4033, 4036, 4039, 4042, 4045, 4048, 4051, 4054, 4057, 4060, 4063, 4066, 4069, 4072, 4075, 4078, 4081, 4084, 4087, 4090, 4093, 4096, 4099, 4102, 4105, 4108, 4111, 4114, 4117, 4120, 4123, 4126, 4129, 4132, 4135, 4138, 4141, 4144, 4147, 4150, 4153, 4156, 4159, 4162, 4165, 4168, 4171, 4174, 4177, 4180, 4183, 4186, 4189, 4192, 4195, 4198, 4201, 4204, 4207, 4210, 4213, 4216, 4219, 4222, 4225, 4228, 4231, 4234, 4237, 4240, 4243, 4246, 4249, 4252, 4255, 4258, 4261, 4264, 4267, 4270, 4273, 4276, 4279, 4282, 4285, 4288, 4291, 4294, 4297, 4300, 4303, 4306, 4309, 4312, 4315, 4318, 4321, 4324, 4327, 4330, 4333, 4336, 4339, 4342, 4345, 4348, 4351, 4354, 4357, 4360, 4363, 4366, 4369, 4372, 4375, 4378, 4381, 4384, 4387, 4390, 4393, 4396, 4399, 4402, 4405, 4408, 4411, 4414, 4417, 4420, 4423, 4426, 4429, 4432, 4435, 4438, 4441, 4444, 4447, 4450, 4453, 4456, 4459, 4462, 4465, 4468, 4471, 4474, 4477, 4480, 4483, 4486, 4489, 4492, 4495, 4498, 4501, 4504, 4507, 4510, 4513, 4516, 4519, 4522, 4525, 4528, 4531, 4534, 4537, 4540, 4543, 4546, 4549, 4552, 4555, 4558, 4561, 4564, 4567, 4570, 4573, 4576, 4579, 4582, 4585, 4588, 4591, 4594, 4597, 4600, 4603, 4606, 4609, 4612, 4615, 4618, 4621, 4624, 4627, 4630, 4633, 4636, 4639, 4642, 4645, 4648, 4651, 4654, 4657, 4660, 4663, 4666, 4669, 4672, 4675, 4678, 4681, 4684, 4687, 4690, 4693, 4696, 4699, 4702, 4705, 4708, 4711, 4714, 4717, 4720, 4723, 4726, 4729, 4732, 4735, 4738, 4741, 4744, 4747, 4750, 4753, 4756, 4759, 4762, 4765, 4768, 4771, 4774, 4777, 4780, 4783, 4786, 4789, 4792, 4795, 4798, 4801, 4804, 4807, 4810, 4813, 4816, 4819, 4822, 4825, 4828, 4831, 4834, 4837, 4840, 4843, 4846, 4849, 4852, 4855, 4858, 4861, 4864, 4867, 4870, 4873, 4876, 4879, 4882, 4885, 4888, 4891, 4894, 4897, 4900, 4903, 4906, 4909, 4912, 4915, 4918, 4921, 4924, 4927, 4930, 4933, 4936, 4939, 4942, 4945, 4948, 4951, 4954, 4957, 4960, 4963, 4966, 4969, 4972, 4975, 4978, 4981, 4984, 4987, 4990, 4993, 4996, 5000, 5003, 5006, 5009, 5012, 5015, 5018, 5021, 5024, 5027, 5030, 5033, 5036, 5039, 5042, 5045, 5048, 5051, 5054, 5057, 5060, 5063, 5066, 5069, 5072, 5075, 5078, 5081, 5084, 5087, 5090, 5093, 5096, 5099, 5102, 5105, 5108, 5111, 5114, 5117, 5120, 5123, 5126, 5129, 5132, 5135, 5138, 5141, 5144, 5147, 5150, 5153, 5156, 5159, 5162, 5165, 5168, 5171, 5174, 5177, 5180, 5183, 5186, 5189, 5192, 5195, 5198, 5201, 5204, 5207, 5210, 5213, 5216, 5219, 5222, 5225, 5228, 5231, 5234, 5237, 5240, 5243, 5246, 5249, 5252, 5255, 5258, 5261, 5264, 5267, 5270, 5273, 5276, 5279, 5282, 5285, 5288, 5291, 5294, 5297, 5300, 5303, 5306, 5309, 5312, 5315, 5318, 5321, 5324, 5327, 5330, 5333, 5336, 5339, 5342, 5345, 5348, 5351, 5354, 5357, 5360, 5363, 5366, 5369, 5372, 5375, 5378, 5381, 5384, 5387, 5390, 5393, 5396, 5399, 5402, 5405, 5408, 5411, 5414, 5417, 5420, 5423, 5426, 5429, 5432, 5435, 5438, 5441, 5444, 5447, 5450, 5453, 5456, 5459, 5462, 5465, 5468, 5471, 5474, 5477, 5480, 5483, 5486, 5489, 5492, 5495, 5498, 5501, 5504, 5507, 5510, 5513, 5516, 5519, 5522, 5525, 5528, 5531, 5534, 5537, 5540, 5543, 5546, 5549, 5552, 5555, 5558, 5561, 5564, 5567, 5570, 5573, 5576, 5579, 5582, 5585, 5588, 5591, 5594, 5597, 5600, 5603, 5606, 5609, 5612, 5615, 5618, 5621, 5624, 5627, 5630, 5633, 5636, 5639, 5642, 5645, 5648, 5651, 5654, 5657, 5660, 5663, 5666, 5669, 5672, 5675, 5678, 5681, 5684, 5687, 5690, 5693, 5696, 5699, 5702, 5705, 5708, 5711, 5714, 5717, 5720, 5723, 5726, 5729, 5732, 5735, 5738, 5741, 5744, 5747, 5750, 5753, 5756, 5759, 5762, 5765, 5768, 5771, 5774, 5777, 5780, 5783, 5786, 5789, 5792, 5795, 5798, 5801, 5804, 5807, 5810, 5813, 5816, 5819, 5822, 5825, 5828, 5831, 5834, 5837, 5840, 5843, 5846, 5849, 5852, 5855, 5858, 5861, 5864, 5867, 5870, 5873, 5876, 5879, 5882, 5885, 5888, 5891, 5894, 5897, 5900, 5903, 5906, 5909, 5912, 5915, 5918, 5921, 5924, 5927, 5930, 5933, 5936, 5939, 5942, 5945, 5948, 5951, 5954, 5957, 5960, 5963, 5966, 5969, 5972, 5975, 5978, 5981, 5984, 5987, 5990, 5993, 5996