Question 1	Question 2	Question 3	Question 4
Expand and simplify $(x - 6)(x + 5)$	Expand and simplify $(x + 2)(x + 2)$	Work out $2311 \times 10^3 =$	Work out $674000 \div 10^4 =$
$x^2 - x - 30$	$x^2 + 4x + 4$	2311000	67.4
Question 5 Distance = 16 km, Time = 15 minutes, speed = ? km/h	**Question 6** Distance = 90 km, Time = 1 hour 30 minutes, speed = ? km/h	**Question 7** 2 3/6 × 0 4/5 =	**Question 8** 2 2/5 × 0 1/3 =
64 km/h	60 km/h	2	$4/5$
Question 9 Express 110 as a product of prime factors	**Question 10** Express 40 as a product of prime factors	**Question 11** Solve	**Question 12** Solve
$2 \times 5 \times 11$	$2^3 \times 5$	$x = 4$	$x = -2$
Question 13 List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 5	**Question 14** List the first 4 terms of a Geometric sequence with a first term of 4 and a common ratio of 4	**Question 15** Divide £65 in the ratio 2 : 11	**Question 16** Divide £24 in the ratio 7 : 1
2, 10, 50, 250	4, 16, 64, 256	£10, £55	£21, £3
Question 17 Decrease £4600 by 20%	**Question 18** Decrease £7720 by 20%	**Question 19** Simplify	**Question 20** Simplify
£3680	£6176	$27x^6 y^{15}$	$9x^4 z^8$

Question 1 Expand and simplify (x - 2)(x - 3) $x^2 - 5x + 6$	**Question 2** Expand and simplify (x + 6)(x + 3) $x^2 + 9x + 18$	**Question 3** Work out 2121	**Question 4** Work out 1838
Question 5 Distance = 9 km, Time = 20 minutes , speed = ? km/h 27 km/h	**Question 6** Distance = 72 km, Time = 2 hours , speed = ? km/h 36 km/h	**Question 7** 2 2/7 × 1 1/3 = 3 1/21	**Question 8** 1 2/4 × 0 1/2 = 3/4
Question 9 Express 330 as a product of prime factors $2 \times 3 \times 5 \times 11$	**Question 10** Express 216 as a product of prime factors $2^3 \times 3^3$	**Question 11** Solve x = 3	**Question 12** Solve x = 1
Question 13 List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 4 2, 8, 32, 128	**Question 14** List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 4 2, 8, 32, 128	**Question 15** Divide £80 in the ratio 3 : 5 £30, £50	**Question 16** Divide £132 in the ratio 3 : 8 £36, £96
Question 17 Decrease £5480 by 10% £4932	**Question 18** Decrease £4600 by 20% £3680	**Question 19** Simplify $(3x^3y^3)^3$ $27x^9y^9$	**Question 20** Simplify $(2xy^4)^2$ $4x^2y^8$

Question 1 Expand and simplify $(x - 1)(x + 4)$ $x^2 + 3x - 4$	**Question 2** Expand and simplify $(x + 7)(x + 1)$ $x^2 + 8x + 7$	**Question 3** Work out 2367	**Question 4** Work out 1.906
Question 5 Distance = 8 km, Time = 15 minutes , speed = ? km/h 32 km/h	**Question 6** Distance = 16 km, Time = 15 minutes , speed = ? km/h 64 km/h	**Question 7** 3 5/7 × 0 3/5 = 2 8/35	**Question 8** 1 2/6 × 1 2/3 = 2 2/9
Question 9 Express 30 as a product of prime factors $2 \times 3 \times 5$	**Question 10** Express 220 as a product of prime factors $2^2 \times 5 \times 11$	**Question 11** Solve x = 4	**Question 12** Solve x = 0.5
Question 13 List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 4 2, 8, 32, 128	**Question 14** List the first 4 terms of a Geometric sequence with a first term of 1 and a common ratio of 2 1, 2, 4, 8	**Question 15** Divide £42 in the ratio 1 : 5 £7, £35	**Question 16** Divide £24 in the ratio 5 : 3 £15, £9
Question 17 Decrease £7200 by 5% £6840	**Question 18** Increase £2700 by 20% £3240	**Question 19** Simplify $(3x^4z^4)^4$ $81x^{16}z^{16}$	**Question 20** Simplify $(3x^3y^2)^2$ $9x^6y^4$

Question 1	Question 2	Question 3	Question 4
Expand and simplify $(x + 4)(x + 7)$	Expand and simplify $(x + 7)(x + 2)$	Work out	Work out
$x^2 + 11x + 28$	$x^2 + 9x + 14$	215.1	239.3
Question 5	**Question 6**	**Question 7**	**Question 8**
Distance = 5 km, Time = 10 minutes, speed = ? km/h	Distance = 25 km, Time = 30 minutes, speed = ? km/h	$3\,3/5 \times 2\,2/3 =$	$2\,1/7 \times 0\,1/2 =$
30 km/h	50 km/h	9 3/5	1 1/14
Question 9	**Question 10**	**Question 11**	**Question 12**
Express 210 as a product of prime factors	Express 44 as a product of prime factors	Solve	Solve
$2 \times 3 \times 5 \times 7$	$2^2 \times 11$	$x = 3$	$x = 0.5$
Question 13	**Question 14**	**Question 15**	**Question 16**
List the first 4 terms of a Geometric sequence with a first term of 3 and a common ratio of 10	List the first 4 terms of a Geometric sequence with a first term of 4 and a common ratio of 5	Divide £27 in the ratio 1 : 2	Divide £132 in the ratio 5 : 7
3, 30, 300, 3000	4, 20, 100, 500	£9, £18	£55, £77
Question 17	**Question 18**	**Question 19**	**Question 20**
Decrease £7720 by 20%	Increase £2700 by 20%	Simplify $(4x^5y)^3$	Simplify $(3x^3y)^2$
£6176	£3240	$64x^{15}y^3$	$9x^6y^2$

Question 1 Expand and simplify $(x + 6)(x - 3)$ $x^2 + 3x - 18$	**Question 2** Expand and simplify $(x - 3)(x + 5)$ $x^2 + 2x - 15$	**Question 3** Work out 180	**Question 4** Work out 30.1
Question 5 Distance = 114 km, Time = 1 hour 30 minutes , speed = ? km/h 76 km/h	**Question 6** Distance = 16 km, Time = 15 minutes , speed = ? km/h 64 km/h	**Question 7** 2 1/7 × 0 3/4 = 1 17/28	**Question 8** 3 2/5 × 0 1/2 = 1 7/10
Question 9 Express 440 as a product of prime factors $2^3 \times 5 \times 11$	**Question 10** Express 1080 as a product of prime factors $2^3 \times 3^3 \times 5$	**Question 11** Solve $x = 1$	**Question 12** Solve $x = -1$
Question 13 List the first 4 terms of a Geometric sequence with a first term of 3 and a common ratio of 5 3, 15, 75, 375	**Question 14** List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 6 2, 12, 72, 432	**Question 15** Divide £143 in the ratio 11 : 2 £121, £22	**Question 16** Divide £140 in the ratio 3 : 11 £30, £110
Question 17 Decrease £5480 by 10% £4932	**Question 18** Decrease £4600 by 20% £3680	**Question 19** Simplify $(2xy^2)^4$ $16x^4y^8$	**Question 20** Simplify $(2xz)^2$ $4x^2z^2$

Question 1 Expand and simplify $(x + 2)(x - 4)$ $x^2 - 2x - 8$	**Question 2** Expand and simplify $(x - 3)(x + 4)$ $x^2 + x - 12$	**Question 3** Work out 12960000	**Question 4** Work out 2.323
Question 5 Distance = 165 km, Time = 1 hour 15 minutes , speed = ? km/h 132 km/h	**Question 6** Distance = 13 km, Time = 15 minutes , speed = ? km/h 52 km/h	**Question 7** $2\ 2/3 \times 0\ 1/2 =$ 1 1/3	**Question 8** $2\ 1/6 \times 1\ 1/3 =$ 2 8/9
Question 9 Express 168 as a product of prime factors $2^3 \times 3 \times 7$	**Question 10** Express 80 as a product of prime factors $2^4 \times 5$	**Question 11** Solve $x = 1$	**Question 12** Solve $x = 0.5$
Question 13 List the first 4 terms of a Geometric sequence with a first term of 3 and a common ratio of 6 3, 18, 108, 648	**Question 14** List the first 4 terms of a Geometric sequence with a first term of 3 and a common ratio of 3 3, 9, 27, 81	**Question 15** Divide £88 in the ratio 5 : 3 £55, £33	**Question 16** Divide £144 in the ratio 11 : 5 £99, £45
Question 17 Decrease £7200 by 5% £6840	**Question 18** Increase £2700 by 20% £3240	**Question 19** Simplify $(2x^2y^4)^3$ $8x^6y^{12}$	**Question 20** Simplify $(2xy^5)^2$ $4x^2y^{10}$

Question 1	Question 2	Question 3	Question 4
Expand and simplify $(x + 4)(x - 6)$	Expand and simplify $(x - 3)(x + 3)$	Work out	Work out
$x^2 - 2x - 24$	$x^2 - 9$	805000	2.482
Question 5	**Question 6**	**Question 7**	**Question 8**
Distance = 20 km, Time = 10 minutes , speed = ? km/h	Distance = 8 km, Time = 30 minutes , speed = ? km/h	$1 \ 1/6 \times 0 \ 1/4 =$	$3 \ 3/5 \times 2 \ 1/3 =$
120 km/h	16 km/h	7/24	8 2/5
Question 9	**Question 10**	**Question 11**	**Question 12**
Express 216 as a product of prime factors	Express 165 as a product of prime factors	Solve	Solve
$2^3 \times 3^3$	$3 \times 5 \times 11$	$x = -4$	$x = 4$
Question 13	**Question 14**	**Question 15**	**Question 16**
List the first 4 terms of a Geometric sequence with a first term of 1 and a common ratio of 3	List the first 4 terms of a Geometric sequence with a first term of 2 and a common ratio of 2	Divide £180 in the ratio 7 : 11	Divide £48 in the ratio 5 : 11
1, 3, 9, 27	2, 4, 8, 16	£70, £110	£15, £33
Question 17	**Question 18**	**Question 19**	**Question 20**
Decrease £7200 by 5%	Increase £2920 by 10%	Simplify $(2x^3y^3)^2$	Simplify $(4x^2z^3)^4$
£6840	£3212	$4x^6y^6$	$256x^8z^{12}$