HB2.1

1) Expand and simplify $(x - 5)(x + 2)$

2) Factorise fully $18x^3 - 12x$

3) What is the 20th term of 14, 17, 20, 23, … ?

4) Divide £450 in the ratio 4 : 5

5) Work out $2.8 \div 0.4$

1) Decrease £8620 by 15%

2) Work out $3\frac{1}{3} \div \frac{2}{5}$

3) Work out the value of $3x^2 + y$ when $x = 4$ and $y = -8$

4) The mean of 12, 17, x, 20, 14 is 12. Find x

5) Solve $\frac{x}{3} + 4 = x + 6$

1) Expand $6x(4x - 2)$

2) Factorise fully $24x^2 - 32x^3$

3) What is the 20th term of 5, 14, 23, 32, … ?

4) Divide 360ml in the ratio 2 : 3 : 4

5) Work out $36 \div 0.9$

1) Increase £720 by 15%

2) Work out $3\frac{1}{3} \times 1\frac{2}{3}$

3) Work out the value of $5x - 2y^2$ when $x = -4$ and $y = 3$

4) Find the median of 23, 12, 14, 32, 20, 27

5) Solve $\frac{2x}{3} + 7 = x - 10$

HB2.5

1) Expand and simplify $(x + 3)^2$

2) Factorise fully $20x^3 - 14x$

3) What is the 30th term of -6, -1, 4, 9, … ?

4) Divide 640kg in the ratio 3 : 5

5) Work out $34.26 \div 0.3$

1)   Decrease £820 by 85%

2)   Work out $3\frac{1}{3} \div 1\frac{2}{3}$

3)   Work out the value of $7 + xy$ when $x = 5$ and $y = -4$

4)   The mean of 8, x, 12, 9, x and 7 is 13. Find the value of x

5)   Solve $\frac{x}{5} + 2 = x + 4$