

HB1.3



1) Find the highest common factor of 70 and 245

2) Find the 50th term of 23, 29, 35, 41, ...

3) Work out $20 - 4 \times 3 + 2$

4) Work out 73×2.8

5) Work out $5138 \div 14$

HB1.4



1) Work out $4\frac{2}{5} + 3\frac{3}{4}$

2) Find 45% of £280

3) Expand and simplify $5(2x + 4) - 3(4x + 6)$

4) Solve $6x + 4 = 2$

5) Work out the value of $100 - 4a^2$ when $a = 3$

HB2.3



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 $36 \div 0.9$

HB2.4



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

HB3.3



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

2) Expand and simplify $3(4a - b) + 5(2a - 3b)$

3) Work out $2\frac{3}{4} - 1\frac{2}{3}$

4) Work out $8.31 \div 0.3$

5) Work out $5 - (3 + 2)^2 \times 4$

HB4.4



- 1) If $x = 3$ find the value of $2x^2 - 16$

- 2) By rounding each number to one significant figure, estimate $18.32 \div 0.231^2$

- 3) Find the n th term of the sequence 0, 7, 14, 21, ...

- 4) Express 250 as a product of prime factors

- 5) Expand $(x - 6)(x - 3)$

HB5.3



1) A price is decreased from £250 to £215.
Calculate the percentage decrease.

2) Simplify $\sqrt{7} \times \sqrt{14}$

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

4) Work out $\frac{4}{7} \times \frac{2}{5}$

5) Make x the subject of $y = (ax)^2 + b$

HB5.4



1) Solve $2x + 7 \geq 4x - 5$

2) Work out $5 - 4 + 3 \times 2 \div 1$

3) Simplify $(5x^2y^3)^2$

4) Work out 81×27

5) Express 60700 in standard form

HB6.3



1) Expand and simplify $(5x + 3)(3x - 2)$

2) Simplify $7\sqrt{5} - \sqrt{5}$

3) Find the gradient of the line $2x + y = 7$

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

5) Find the 100th term of 8, 3, -2, -7, ...

