

Higher A

Autumn Half Term 1 - Week 1:

- 1 Express 40 as a **product of primes**
- 2 Find the **nth term** of 3, 9, 15, 21
- 3 Work out $5 + 3 \times 2$
- 4 Work out 4.2×2.5
- 5 Work out $756 \div 9$
- 6 Work out $\frac{2}{3} + \frac{4}{5}$ (as a **mixed number**)
- 7 Decrease £450 by 5%
- 8 **Expand and simplify** $5(x + 2) + 3(3x + 1)$
- 9 **Solve** $8x + 5 = 4x + 25$
- 10 $y = 10 + 5x$ Find the value of y when $x = 6$

Higher A

Autumn Half Term 1 - Week 2:

- 1 Express 120 as a **product of primes**
- 2 Find the **nth term** of -2, 4, 10, 16
- 3 Work out $25 - 5 \times 2$
- 4 Work out 3.1^2
- 5 Work out $1368 \div 24$
- 6 Work out $2\frac{1}{3} + 1\frac{3}{7}$ (as a **mixed** number)
- 7 Increase £3.80 by 5%
- 8 **Expand and simplify** $4(x + 2) + 2(3x - 1)$
- 9 **Solve** $6x - 5 = 4x - 7$
- 10 $y = 10 - 5x$ Find the value of y when $x = 4$

Higher A

Autumn Half Term 1 – Week 3:

- 1 What is the **highest common factor** of 36 and 90?
- 2 Find the **nth term** of -1 , 3, 7, 11
- 3 Work out $6 \times (2 - 12)$
- 4 Work out 0.43^2
- 5 Work out $1170 \div 26$
- 6 Work out $\frac{2}{3} - \frac{3}{5}$
- 7 Decrease £9500 by 5%
- 8 **Expand and simplify** $3(3x - 1) + 2(x - 1)$
- 9 **Solve** $7x - 5 = 4x - 4$
- 10 $y = 10 - 5x$ Find the value of y when $x = -2$

Higher A

Autumn Half Term 1 - Week 4:

- 1 What is the **highest common factor** of 28 and 140?
- 2 Find the **nth term** of 1, 4, 9, 16
- 3 Work out $6 - 2 \times (2 + 3)$
- 4 Work out $62 \times \text{£}18.50$
- 5 If you have $\text{£}130.20$ how many 90p pencils can you buy?
- 6 Work out $2\frac{1}{5} - \frac{5}{6}$
- 7 Decrease $\text{£}1030$ by 15%
- 8 **Expand and simplify** $3(3x + 1) - 2(x + 1)$
- 9 **Solve** $2x + 3 = 4x - 4$
- 10 $y = 5x^2$ Find the value of y when $x = -2$

Higher A

Autumn Half Term 1 – Week 5:

- 1 What is the **lowest common multiple** of 15 and 18?
- 2 Find the **nth term** of 2, 5, 10, 17
- 3 Work out $10 \times 2 - 2 \times (2 - 3)$
- 4 Work out $54 \times \text{£}1.85$
- 5 You have $\text{£}85$. How many $\text{£}1.25$ chocolate bars can you buy?
- 6 Work out $2\frac{2}{5} - 1\frac{3}{4}$
- 7 Increase $\text{£}1002$ by 35%
- 8 **Expand and simplify** $2(3x + 4) - 2(x - 5)$
- 9 **Solve** $2(2x - 1) = 30$
- 10 $y = 10 - x^2$ Find the value of y when $x = 5$

Higher A

Autumn Half Term 1 – Week 6:

- 1 What is the **highest common factor** of 18 and 96?
- 2 Find the **nth term** of 0, 3, 8, 15
- 3 Work out $10 + 2 - 2 \times (2 \div 2)$
- 4 Work out $12 \times \text{£}21.55$
- 5 Work out $35 \div 6$ (correct to 2 d.p.)
- 6 Work out $2\frac{2}{5} + 1\frac{3}{4} - \frac{1}{2}$ (as a **mixed number**)
- 7 Decrease $\text{£}5002$ by 15%
- 8 **Expand and simplify** $2(3x - 4) - 2(2x - 3)$
- 9 **Solve** $3(18x + 2) = 33$
- 10 $y = 18 - x^2$ Find the value of y when $x = -3$