Algebra Revision Mat

Simplifying
1) $y + y + y + y$

2) $3a + 4a + 2a$

3) $5s + 5t + 3s + 2t$

4) $6f + 5g - 3f + 3g$

5) $4z - 3w - 2z - 3w$

Solving Equations 1
1) $x + 4 = 11$

2) $w - 6 = 23$

3) $5d = 70$

4) $k/4 = 7$

5) $2x + 6 = 12$

Expanding Brackets
1) $3(a + 4)$

2) $5(c + 6b)$

3) $4(x - 3y)$

4) $a(a + 5)$

5) $x(4y - 2x)$

nth Term
Find the nth term of the following sequences
1) 5, 8, 11, 14, 17, …

2) 9, 14, 19, 24, 29, …

3) 3, 9, 15, 21, 27, …

4) 2, 4, 6, 8, 10, …

5) Find the first three terms of the sequence with nth term $3n - 2$

6) Find the first three terms of the sequence with nth term $2n + 4$

Substitution 1
1) Find $3x + 5y$ when $x = 4$ and $y = 2$

2) Find abc when $a = 2$, $b = 3$ and $c = 5$

3) Find $7s - 2t$ when $s = 4$ and $t = -3$

4) Find $4(2n - 3)$ when $n = 5$

Solving Equations 2
1) $6(x - 2) = 24$

2) $5(4y + 2) = 70$

3) $2x + 4 = 5x - 8$

4) $4x - 3 = 2x + 2$

5) $3(x + 6) = 4(x + 5)$

Factorise
1) $3x + 33$

2) $5y + 25$

3) $4a - 18$

4) $x^2 + 4x$

Substitution 2
1) Find $3x - 4y$ when $x = 5$ and $y = -3$

2) Find $a^2 + 3b$ when $a = 4$ and $b = -2$

3) Find $4x^2$ when $x = 3$

4) Find xy^2 when $x = 2$ and $y = -3$

5) Find $5x^2 + 2y^2$ when $x = 2$ and $y = 3$