

Core Knowledge

Topic/Skill	Definition/Tips	Example
1. Expression	A mathematical statement written using symbols, numbers or letters ,	$3x + 2$ or $5y^2$
2. Simplifying Expressions	Collect 'like terms'. Be careful with negatives. x^2 and x are not like terms.	$2x + 3y + 4x - 5y + 3$ $= 6x - 2y + 3$ $3x + 4 - x^2 + 2x - 1 = 5x - x^2 + 3$
3. x times x	The answer is x^2 not $2x$.	Squaring is multiplying by itself, not by 2.
4. $p \times p \times p$	The answer is p^3 not $3p$	If $p=2$, then $p^3=2 \times 2 \times 2=8$, not $2 \times 3=6$
5. Expand	To expand a bracket, multiply each term in the bracket by the expression outside the bracket. Use grid method if it helps you	1) $3(m + 7) = 3m + 21$ 2) $(m + 7)(m - 3) = m^2 - 3m + 7m - 21$ $= m^2 + 4m - 21$

Links to solving equations, equating coefficients, finding area and volume of shapes, expanding 3 brackets, expand brackets using surds