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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Algebra** |
| 1. Expression | A mathematical statement written using **symbols**, **numbers** or **letters**, | 3x + 2 or 5y2 |
| 2. Equation | A statement showing that **two expressions are equal** | 2y – 17 = 15 |
| 3. Identity | An equation that is **true for all values** of the variables  An identity uses the symbol: | *2x ≡ x+x* |
| 4. Formula | Shows the **relationship** between **two or more variables** | Area of a rectangle = length x width or A= LxW |
| 5. Simplifying Expressions | **Collect ‘like terms’.**  Be careful with negatives.  and are not like terms. |  |
| 6. times | The answer is not . | Squaring is multiplying by itself, not by 2. |
| 7. | The answer is not | If p=2, then =2x2x2=8, not 2x3=6 |
| 8. | The answer is 3p not | If p=2, then 2+2+2=6, not |
| 9. Expand | To expand a bracket, **multiply** each term **in the bracket** by the expression **outside** the bracket. |  |
| 10. Factorise | The **reverse** of **expanding**.  Factorising is writing an expression as a product of terms by ‘**taking out’ a common factor**. | , where 3 is the common factor. |

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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Further Quadratics** |
| 1. Quadratic | A quadratic expression is of the form  where and are numbers, | Examples of quadratic expressions:  Examples of non-quadratic expressions: |
| 2. Factorising Quadratics | When a quadratic expression is in the form find the two numbers that **add to give b** and **multiply to give c**. | (because 5 and 2 add to give 7 and multiply to give 10)  (because +4 and -2 add to give +2 and multiply to give -8) |

**Knowledge Organiser**