|  |  |  |
| --- | --- | --- |
| **Topic/Skill**  | **Definition/Tips****Topic: Proofs**  | **Example** |
| 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 variablesAn 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. Coefficient | A **number** used to **multiply** a **variable**.It is the number that comes before/in front of a letter. | 6z6 is the coefficientz is the variable |
| 6. Odds and Evens | An **even** number is a **multiple of 2**An **odd** number is an integer which is **not a multiple of 2**. | If n is an integer (whole number):An even number can be represented by **2n** or **2m** etc.An odd number can be represented by **2n-1** or **2n+1** or **2m+1** etc. |
| 7. Consecutive Integers | Whole numbers that follow each other in order. | If n is an integer:**n, n+1, n+2** etc. are consecutive integers. |
| 8. Square Terms | A term that is produced by multiply another term by itself. | If n is an integer:$n^{2}$, $m^{2}$ etc. are square integers |
| 9. Sum | The sum of two or more numbers is the value you get when you add them together. | The sum of 4 and 6 is 10 |
| 10. Product  | The product of two or more numbers is the value you get when you multiply them together. | The product of 4 and 6 is 24 |
| 11. Multiple | To show that an expression is a **multiple** of a number, you need to show that you can **factor out the number**. | $4n^{2}+8n-12$ is a multiple of 4 because it can be written as:$$4(n^{2}+2n-3)$$ |

**Knowledge Organiser**