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| **Topic/Skill**  | **Definition/Tips** | **Example****Year 9 Higher Knowledge Organisers****N4 Decimals Higher only content in blue**  |
| 1. Integer | A **whole number** that can be positive, negative or zero. | $$-3, 0, 92$$ |
| 2. Decimal | A number with a **decimal point** in it. Can be positive or negative. | $$3.7, 0.94, -24.07$$ |
| 3. Negative Number | A number that is **less than zero**. Can be decimals. | $$-8, -2.5$$ |
| 4. Addition | To find the **total**, or **sum**, of two or more numbers.‘add’, ‘plus’, ‘sum’ | $$3+2+7=12$$ |
| 5. Subtraction | To find the **difference** between two numbers.To find out how many are left when some are taken away.‘minus’, ‘take away’, ‘subtract’ | $$10-3=7$$ |
| 6. Multiplication | Can be thought of as **repeated addition**. ‘multiply’, ‘times’, ‘product’ | $$3×6=6+6+6=18$$ |
| 7. Division | Splitting into equal parts or groups.The process of calculating the **number of times one number is contained within another one**.‘divide’, ‘share’ | $$20÷4=5$$$$\frac{20}{4}=5$$ |
| 8. Remainder | The amount ‘**left over**’ after dividing one integer by another. | The remainder of $20÷6$ is $2$, because 6 divides into 20 exactly 3 times, with 2 left over. |
| 9. BIDMAS | An acronym for the **order** you should do calculations in.BIDMAS stands for **‘Brackets, Indices, Division, Multiplication, Addition and Subtraction’**.Indices are also known as ‘powers’ or ‘orders’.With strings of division and multiplication, or strings of addition and subtraction, and no brackets, work from left to right. | $$6+3×5=21, not 45$$$5^{2}=25$, where the 2 is the index/power.$$12÷4÷2=1.5,not 6$$ |
| 10. Recurring Decimal | A decimal number that has **digits that repeat forever**.The part that repeats is usually shown by placing a dot above the digit that repeats, or dots over the first and last digit of the repeating pattern. | $$\frac{1}{3}=0.333…=0.\dot{3}$$$$\frac{1}{7}=0.142857142857…=0.\dot{1}4285\dot{7}$$$$\frac{77}{600}=0.128333…=0.128\dot{3}$$ |

**Knowledge Organiser**