

## Topic: Basic Number and Decimals

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