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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Calculating with Percentages** |
| 1. Increase or Decrease by a Percentage | Non-calculator: **Find the percentage** and **add** or **subtract** it from the **original** amount.  Calculator: Find the **percentage multiplier** and multiply. | Increase 500 by 20% (Non Calc):  10% of 500 = 50  so 20% of 500 = 100  500 + 100 = 600  Decrease 800 by 17% (Calc):  100%-17%=83%  83% ÷ 100 = 0.83  0.83 x 800 = 664 |
| 2. Percentage Multiplier | The **number** you **multiply** a quantity by to **increase or decrease** it by a **percentage**. | The multiplier for increasing by 12% is 1.12  The multiplier for decreasing by 12% is 0.88  The multiplier for increasing by 100% is 2. |
| 3. Reverse Percentage | Find the **correct percentage given in the question**, then work backwards to **find 100%**  Look out for words like ‘**before’** or ‘**original’** | A jumper was priced at £48.60 after a 10% reduction. Find its original price.  100% - 10% = 90%  90% = £48.60  1% = £0.54  100% = £54 |
| 4. Simple Interest | Interest calculated as a **percentage of the original** amount. | £1000 invested for 3 years at 10% simple interest.  10% of £1000 = £100  Interest = |

**Knowledge Organiser**