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| **Topic/Skill** | **Definition/Tips** | **Example** |
| 1. Percentage | **Number of parts per 100.** | $31\% $means $\frac{31}{100}$ |
| 2. Finding 10% | To find **10%**, **divide by 10** | 10% of £36 = 36÷10=£3.60 |
| 3. Finding 1% | To find **1%**, **divide by 100** | 1% of £8 = 8÷100 = £0.08 |
| 4. Fractions to Decimals | **Divide the numerator by the denominator** using the bus stop method. | $$\frac{3}{8}= 3÷8=0.375$$ |
| 5. Decimals to Fractions | **Write as a fraction** over 10, 100 or 1000 and simplify. | $$0.36= \frac{36}{100}= \frac{9}{25}$$ |
| 6. Percentages to Decimals | **Divide by 100** | $$8\%=8÷100=0.08$$ |
| 7. Decimals to Percentages | **Multiply by 100** | $$0.4=0.4 ×100\%=40\%$$ |
| 8. Fractions to Percentages | Percentage is just a fraction out of 100. **Make the denominator 100 using equivalent fractions**.When the denominator doesn’t go in to 100, use a calculator and **multiply the fraction by 100**. | $$\frac{3}{25}=\frac{12}{100}=12\%$$$$\frac{9}{17}×100=52.9\%$$ |
| 9. Percentages to Fractions | Percentage is just a fraction out of 100.**Write the percentage over 100** and simplify. | $$14\%= \frac{14}{100}=\frac{7}{50}$$ |
| 10. Percentage Change | $$\frac{Difference}{Original}×100\%$$ | A games console is bought for £200 and sold for £250.% change = $\frac{50}{200}×100=25\%$ |
| 11. Profit and Loss | $$\frac{Profit }{Original}×100\%$$$$\frac{Loss }{Original}×100\%$$ | A watch is bought for £800 and sold for £650. Work out the loss %% loss = $\frac{150}{800}×100=18.75\%$ |
| 12. Increase or Decrease by a PercentageIncrease 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%:10% of 500 = 50so 20% of 500 = 100500 + 100 = 600Decrease 800 by 17%:100%-17%=83%83% ÷ 100 = 0.830.83 x 800 = 664 |