Guide to: Percentages

maths Links

Explanation:

On a **non-calculator** paper, break percentages down into building blocks: find **10%** (÷ 10), **1%** (÷ 100), **5%** (half of 10%), and **50%** (÷ 2), then add them together. On a **calculator** paper, convert the percentage to a decimal (÷ 100) and multiply.

To increase or decrease an amount by a percentage in one step, use a **decimal multiplier**: add the percentage to 100% for an **increase** (e.g. +15% → × 1.15), or subtract from 100% for a **decrease** (e.g. −15% → × 0.85).

Example 1 (Non-calc): Decrease **£240** by **15%**.

Solution:

10% of 240 = 240 ÷ 10 = **£24**
5% of 240 = 24 ÷ 2 = **£12**
15% = £24 + £12 = **£36**
Decrease: £240 − £36 = £204
Answer: £204

Example 2 (Calc): Increase **£460** by **17.5%**.

Solution:

100% + 17.5% = **117.5%**
Multiplier = 117.5 ÷ 100 = **1.175**
£460 × 1.175 = 540.5
Write money with 2 decimal places:
Answer: £540.50

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