PERCENTAGES PART 2 OF 8 · AGES 11–16

Finding a Percentage of an Amount

Three ways to find a percentage of a number: two in your head and one on a calculator, each worked step by step.

1 Build it from 10% and 5%

Find 35% of 260 kg without a calculator.

1. 10% of 260 = 260 ÷ 10 = 26
2. 30% = 3 × 26 = 78
3. 5% is half of 10%: 26 ÷ 2 = 13
4. 35% = 30% + 5% = 78 + 13 = 91

ANSWER **35% of 260 kg = 91 kg**

2 Build it from 10% and 1%

Find 23% of 850 m without a calculator.

1. 10% of 850 = 85, so 20% = 2 × 85 = 170
2. 1% of 850 = 850 ÷ 100 = 8.5
3. 3% = 3 × 8.5 = 25.5
4. 23% = 20% + 3% = 170 + 25.5 = 195.5
5. Check: 25% of 850 is about 212; 23% is a bit less

ANSWER **23% of 850 m = 195.5 m**

3 Calculator: change it to a decimal

A phone plan gives 12 GB of data a month. You have used 68% of it. How much data have you used?

1. Change the percentage to a decimal: 68 ÷ 100 = 0.68
2. Multiply the amount by the decimal: 0.68 × 12
3. 0.68 × 12 = 8.16
4. Check: 68% is about 2/3, and 2/3 of 12 is 8

ANSWER **You have used 8.16 GB**

Swap it round

x% of y is always the same as y% of x. 8% of 50 looks awkward, but 50% of 8 is easy: it is 4. So 8% of 50 is 4 too.

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3. Percentage Increase and Decrease: Step by Step

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