

Percentages

Finding the original value always looks a bit confusing at first. The bit most people get wrong is deciding whether the value given represents more or less than 100% of the original — so always check your answer makes sense.



Q14 In the new year sales Robin bought a tennis racket for £68.00. The original price had been reduced by 15%. What was the original price?

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Q15 There are 360 people living in a certain village. The population of the village has grown by 20% over the past year. How many people lived in the village one year ago?

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Q16 The council tells Mrs Hussein that the tree in her garden is too tall, and orders her to reduce its height by 15%. She cuts 75 cm off the top of the tree to meet the regulations. How tall was her tree originally? Give your answer in m.

75 cm is 15% of the original height.

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Some percentage questions can be a bit weird and wonderful, so you'll need to get your thinking cap on. But don't panic — as long as you remember all your percentage skills, you'll be fine.

Q17 In 2012, Julie's salary was £23 000. In 2013, her salary was 3% lower than in 2012. In 2014, Julie was given a promotion, and her salary was 12% higher than in 2013. What is the percentage increase in Julie's salary between 2012 and 2014?

Do this step by step — work out her salary in 2013, then use that value to work out her 2014 salary.

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Q18 Emily has her own business making and selling greetings cards. Each card costs her 68p to make. One day, Emily has 300 cards to sell. She sells 65% of them for 99p each, and the rest for 75p each. How much profit did Emily make?

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Q19 At a running club, 30% of the members are male. 60% of the male members and 50% of the female members are training to run a marathon. **Without using a calculator**, work out what percentage of the members are training for a marathon.

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Q20 The ratio of fiction to non-fiction books in a library is 7:3. 60% of the fiction books are hardback, and 20% of the non-fiction books are hardback. What percentage of all the books in the library are hardback?

Start by turning the ratio into a percentage.

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