

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?

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?

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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