

## Simple and Compound interest – Percentage change



1. Find the simple interest paid when £600 is borrowed for 3 years at 6% per annum.
2. Find the simple interest paid when £1500 is borrowed for 4 years at 5% per annum.
3. Find the compound interest earned on £4200 invested for 9 years at 5% per annum.
4. Find the compound interest earned on £2300 invested for 12 years at 7% per annum.
5. £1000 invested with compound interest at a rate of 15% per year for 9 years. What is the final amount of money earned after 9 years?
6. £400 invested with compound interest at a rate of 3% per year for 2 years. What is the final amount of money earned after 2 years?
7. Jack now has £5500 after leaving his money in the bank for 5 years earning simple interest at 5% per annum. What was the original amount of money Jack invested?
8. Increase 440€ by 15%.
9. Decrease 520€ by 3%.
10. Mark bought his car in 2010. His car's original value depreciated by 5% during its first year of running. The car then depreciated by 2.3% for the remaining years until Mark sold it at the end of 2015. How much did Mark sell his car the car's price was £30 500 in 2010?
11. Joshua is taller than Tigran by 12.5%. Joshua is 165 cm tall. Work out Tigran's height.
12. Henry buys a bike for £265 after receiving an 11% discount on the purchase cost. What was the bike's original price?
13. Kelly's car has been owned for 7 years. The car has depreciated in value by an average of 20% each year (compound). It is now worth £2010. What was the original price of Kelly's car?
14. A house appreciates in value by  $\frac{1}{4}$  of its value every 5 years (compound). The house is now worth £450 000. How much was it worth 20 years ago?
15. Mike swims four laps. Each lap time goes down by 3% of the time set previously. His final lap time is 60 seconds. Work out his first lap time.
16. A tree grows by 12% of its previous height each year in the first three years of its life. The tree is now 3 metres 20 cm tall. How tall was it at the end of the first year?