

Simple Percentage Increase and Decrease

Answers

For each question, calculate the amount of simple interest charged.

	Amount Borrowed (£)	Interest Rate (Per Annum)	Length of Loan (Years)	Simple Interest
1.	1000	5%	1	$1000 \times 0.05 = \text{£}50$
2.	20 000	3%	5	$20\,000 \times 0.03 \times 5 = \text{£}3000$
3.	150 000	2.5%	25	$150\,000 \times 0.025 \times 25 = \text{£}93\,750$
4.	18 500	4%	10	$18\,500 \times 0.04 \times 10 = \text{£}7400$
5.	3600	8%	1.5	$3600 \times 0.08 \times 1.5 = \text{£}432$
6.	510 000	0.5%	30	$510\,000 \times 0.005 \times 30 = \text{£}76\,500$

7. Gillian owes her mum £240. In March, she pays back 25% of it. In April, she pays back another 30% of the original total. How much does she now owe?

$$240 \times 0.55 = \text{£}132$$

$$240 - 132 = \text{£}108$$

$$\text{or } 240 \times 0.45 = \text{£}108$$

8. Chris needs to borrow £2500 for a short amount of time. The loan company charges 24% simple interest per annum. He will pay the loan back after 13 weeks. Calculate the total amount he will need to pay.

$$2500 \times 0.24 = \text{£}600$$

$$13 \div 52 = 0.25$$

$$600 \times 0.25 = \text{£}150$$

$$2500 + 150 = \text{£}2650$$

9. A student takes out a loan of £9000 to pay for their university course. The loan has a simple interest rate of 2.4% per annum. After 3 years, they are ready to start paying back the loan. How much do they owe before any is paid back?

$$9000 \times 0.024 \times 3 = \text{£}648$$

$$9000 + 648 = \text{£}9648$$

10. A dog had a mass of 40kg. Its mass increased by 8% of the original mass then decreased by 12% of the original mass. Calculate the new mass of the dog.

$$40 \times 0.96 = 38.4\text{kg}$$

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