

Financial Maths

GCSE Maths · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Find the simple interest on £2400 at 3.5% per year for 4 years, and the final balance.

Step 1 · One year

$$0.035 \times 2400 = £84$$

Step 2 · 4 years

$$4 \times 84 = £336$$

Step 3 · Balance

$$2400 + 336 = £2736$$

Answer: £336 interest; £2736

Check: Simple interest: the same £84 every year ✓

2. Now try one with the steps

Leah earns £38 000 a year. The first £12 500 is tax-free; the rest is taxed at 20%. How much tax does she pay?

Step 1 · Taxable income

Step 2 · 20%

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Find the simple interest on £500 at 4% per year for 3 years. [1]

2. £1200 earns simple interest of £90 in 3 years. Find the annual rate, in %. [2]

3. A laptop costs £450 before VAT at 20%. Find the price including VAT. [1]

4. A coat costing £85 is reduced by 30%. Find the sale price. [1]

5. Jo earns £27 000. The first £12 000 is tax-free and the rest is taxed at 20%. How much tax does Jo pay? [2]

6. Sam earns £60 000. The first £12 000 is tax-free, income from £12 000 to £50 000 is taxed at 20%, and income above £50 000 at 40%. Find Sam's tax. [3]

7. Priya is paid £12.40 an hour. How much does she earn for 25 hours? [1]

8. Overtime is paid at time-and-a-half. The normal rate is £14 an hour. Find the pay for 8 hours of overtime. [2]

9. A trader buys a bike for £240 and sells it for £300. Find the percentage profit, in %. [2]

10. A car bought for £8000 is sold for £6200. Find the percentage loss, in %. [2]

11. Which is the better buy: 6 rolls for £2.70 or 9 rolls for £3.96? Give the price per roll of the better one. [2]

12. A phone contract costs £18 a month for 24 months plus £99 upfront. Find the total cost. [2]

13. An electricity bill has a standing charge of 50p a day for 30 days and 820 units at 24p each. Find the total. [3]

14. £3000 is invested at 2% simple interest per year. How many years until the balance reaches £3360? [2]

15. A shop offers 'buy 2, get the third half price' on £12 T-shirts. What is the percentage saving on 3 T-shirts, to 1 decimal place (%)? [3]

4. Before you hand it in

Taxing the whole salary at 20%

Subtract the allowance first, then tax only the remaining income.

Taxing ALL income at 40% once the salary passes the higher threshold

Only the part ABOVE the threshold is taxed at 40%; the part below is still taxed at 20%.

Percentage profit = $\text{profit} \div \text{selling price}$

Divide by the ORIGINAL (cost) price.

Treating simple interest

Simple interest adds the same amount each year. Compound interest (GM-R4) multiplies by the multiplier each year.