

Money

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Class 1

Example 1 Express 30cm as a ratio of 3m

Example 2 Express 75c as a ratio of €1.50

Example 3 Divide €360 in the ratio 4:5

Example 4 Divide 140m in the ratio $\frac{2}{3} : \frac{1}{2}$

Example 5 Divide €522 between A, B and C so that A gets twice B's share and C gets three times A's share.

Example 6 A sum of money is divided in the ratio 4:5, if the larger amount is €60 find the smaller amount.

Example 7 A piece of tape is divided in the ratio of 2:9 if the difference between the two resultant pieces is 140cm find the length of tape.

Example 8 If a car travels 120 km on 8 litres of petrol, find
(i) how far it will travel on 17 litres at the same rate of consumption?
(ii) how many litres will be required for a journey of 280 km?

Example 9 Find the value of \$4350 in Euros when the conversion is €1 = \$1.20

Example 10 If \$1 = €0.82 find the value of €520 in Dollars.

Example 11 It takes 12 men 15 days to build a house, how long will 20 men take to build the same house.

Example 12 A cyclist started a journey of 56km at 1015 and finished the journey at 1135 hours. Calculate the average speed of the cyclist in km/hr.

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Example 13 Convert 3m/s into Km/h

Class 2

Example 1 Find 7% of 350.

Example 2 If 8% of a sum of money is €200 find the sum of money.

Example 3 Write 4.5 as a percentage of 22.5

Example 4 Find a 12% increase on €800.

Example 5 Find a 6% decrease on €150

Example 6 Ann earns €32,000 but is due an increase which will increase her wages to €33,600. Find the percentage increase.

Example 7 John's wage increased by 7% to €43,500 find his wage before the increase to the nearest Euro.

Example 8 A car company buys a car for €16,400. If the car makes an 8.5% profit find the selling price of the car

Example 9 A car cost €17,500 is sold for €19,300 find the percentage profit to one decimal place?

Example 10 A bike is sold for €378 including a profit of 8%. Find the cost the bike?

Example 11 A bike costs €90 before VAT of 15% is added on find the selling price of the bike?

Example 12 A bill amounts to €177.87 when VAT at 21% is included find the value of the VAT?

Example 13 A computer cost €9,560 before VAT and €10,994 with VAT include find the VAT rate.

Example 14 During a sale a dishwasher is sold for €387 with a discount of 14% find the price of the dishwasher before the sale.

Example 15 Calculate the percentage error in taking $60+20$ as an approximation for $62.21+24.12$

Class 3

Example 1 The present reading on the electricity for Ann's house is 34214 units. The previous reading was 31562 units.

How many units of electricity were used since the previous reading?
What is the cost of the electricity used, if electricity cost 7.2 cents per unit?
A standing charge of €8.50 is added and VAT is then charged on the full amount. If Ann's total bill is €214.41, calculate the rate of VAT?

Example 2 A raffle to raise money for a charity is being held.
The first prize is €100, the second is €85, the third is €65 and the fourth is €50.
The cost of printing tickets is €42 for the first 500 tickets and €6 for each additional 100 tickets. The smallest number of tickets that can be printed is 500.
Tickets are being sold at €1.50 each.

Example 3 John earns €50,000. He pays tax at a rate of 22% of his gross income. If he has tax credits of €7,500 find his take home pay.

Example 4 Barry has tax credits of €7,800. He pays €9,580 in tax. If the tax rate is 22% find Barry's gross wage.

Example 5 Tom earns €33,500 a year. He has a tax credits of €7,400. If he pays tax at a rate of 22% at lower rate and 40% at higher rate find his net income if he has a standard rate cut off point of €21,000.

Example 6 John pays €7,850 in tax for the year. He has tax credits of €4,600 and a standard rate cut off point of €21,000. The standard rate of tax is 22% and the higher rate is 40% on all income above the standard rate cut off point. Calculate John's gross income for the year.

Class 4

Example 1 €9,000 is invested for 2 years compound interest. The rate of interest in the first year was 5%, the second year at 6.5%. Calculate the total interest earned.

Example 2 €4,500 is borrowed for 2 years at 8% per annum. If €1,200 is paid back at the end of the first year how much is owed at the end of the second year.

Example 3 A sum of money invested at compound interest amounts to €1,984.50 after two years at 5% per annum. Calculate the sum invested.

Example 4 A sum of money €40,000, is invested for 3 years at compound interest. The rate of interest for year 1 is 10% and for year 2 is also 10%. Calculate how much the invested money amounts to at the end of year 2.
At the end of year 3, the invested money amounted to €51,667. Calculate the rate of interest for year 3.

Example 5 How much money must be invested for 2 years compound interest at 8% per annum in order to earn €777.60 in interest in the second year.

Example 6 A sum of money €5,900, is invested for one year. The rate of interest is 8%. Calculate how much the invested money amounts to at the end of year 1.
A charge of € x was then deducted from this amount. The money, which remained, was converted into dollars and the dollars were invested for a year at a rate of interest of 9% per annum. At the end of the year the, the invested dollars amounted to \$10,137.
If the exchange was \$1=\$1.50 on the day the euros were changed into dollars, calculate x .