

Revision Sheet 3: ARITHMETIC

Chs 16, 17

Q1. John earns $\pounds 47,000$ a year. His standard rate cut-off point is $\pounds 37,400$. The standard rate of tax is 21% and the higher rate is 41%. His tax credit is $\pounds 3200$. His union fees are $\pounds 450$ and his annual health insurance is $\pounds 350$. He has no other deductions. What is John's annual take-home pay? $\pounds 37610$

Q2. A product costs a company $\pounds 16000$ to produce. Find the percentage mark-up if the company sells the product for $\pounds 24000$. 50%

Q3. A camera costs a retailer $\pounds 120$. The recommended selling price is cost price plus 15%. How much should the retailer sell the camera for? $\pounds 138$

Q4. Norma has $\pounds 7290$ in her bank account. This is after two years in which 8% was added to the account at the end of each year. How much did Norma have in the account two years ago? $\pounds 6250$

Q5. If $\$1 = \pounds 1.4045$, how many dollars would you get for $\pounds 1200$. $\$854.40$ The bank charged 3% commission on the transaction. How many dollars did she receive? $\$828.77$

Q6. Seamus is a car salesman. He earns a basic wage of $\pounds 1200$ per month plus 15% commission on any sales he makes. What value of cars does Seamus need to sell each year if he wishes to have an annual income of $\pounds 60000$? $\pounds 304,000$

Q7. A sum of money, £2500, was invested for three years at compound interest. The rate of interest was 4% per annum for the first year and 3% per annum for the second year.

i) Calculate the amount of the investment after two years. £2678

ii) If the investment amounted to £2744.95 after three years, calculate the rate of interest per annum for the third year. $2\frac{1}{2}\%$

Q8. How many more minutes does it take to travel 500km at 75km/h than at 80km/h? 25mins

Q9. Fiona cycles a distance of 6km to school. She travels at an average speed of 18km/h. If she leaves her home at 8.43am, at what time will she arrive at school? 9.03am

Q10. A train leaves a station at 19:12. The average speed of the train on its journey of 130km is 75 km/h. At what time did the train complete its journey? 20:56

Q11. A company has spent £35000 on new equipment. The value of the equipment falls by 20% in the first year and by 15% in the second year after it was bought.

i) How much is the equipment worth when it's two years old? £23800

ii) The manager says that the value has fallen by 35% in the two years. Is she correct? Explain your answer.