MATHLETICS

Consumer Arithmetic

Student Book - Series J-1

$ $ $

Mathletics Instant Workbooks

Consumer arithmetic
Student Book - Series J

Contents

Author of The Topics and Topic Tests: AS Kalra

Consumer arithmetic

Topic 1: Salaries

QUESTION **1** Tom's annual salary is $69 550. How much is he paid each week?

_____

_____

_____

QUESTION **2** Geoff receives a salary of $122 856.50 p.a. What is his gross fortnightly pay?

_____

_____

_____

QUESTION **3** Claudette earns $948 per week. What is her annual salary?

_____

_____

_____

QUESTION **4** Monique receives $4230 per month. Find her

a   annual salary _____

_____

_____

b   weekly pay _____

_____

_____

QUESTION **5** Jim was earning $72 850, after being granted a 7·5% pay rise. What was his pay (to the nearest dollar) before this rise? _____

_____

_____

QUESTION **6** Leslie was earning $85 630 p.a. and received a 6% pay rise. What is her new salary?

_____

_____

_____

QUESTION **7** Simone is a high school teacher and her pay increased from $56 820 p.a. to $65 380 p.a. Calculate her percentage pay rise. _____

_____

_____

Consumer arithmetic

Topic 2: Wages

QUESTION **1** Geoff works 38 hours per week and his weekly wage is $1962. Find ~~~~ rly rate of pay. _____

_____

_____

QUESTION **2** Jill works a basic week of 40 hours and her hourly rate of pay is $32.50. Calculate ~~~~ weekly wage. _____

_____

_____

QUESTION **3** Maddie works in a shop and is paid $21.40 per hour. Calculate Maddie's wage in a week when she works 40 hours. _____

_____

_____

QUESTION **4** Angus works 8 hours a day and a nine-day fortnight. if his pay rate is $18.90 per hour, what is his fortnightly pay?_____

_____

_____

QUESTION **5** Nick works a 38-hour week for an hourly rate of $28.95. Find his total weekly wage.

_____

_____

_____

QUESTION **6** Kim is paid $2643.80 per fortnight. If she works 35 hours per week, what is her hourly rate of pay? _____

_____

_____

QUESTION **7** William is paid $210.60 for working $8\frac{1}{2}$ hours. What will he be paid for working 5 hours at the same rate of pay? _____

_____

_____

QUESTION **8** Anna works 5 hours on Monday, 6 hours on Tuesday, 7 hours on Wednesday, 8 hours on Thursday and 9 hours on Friday. If she is paid $23.80 per hour, what is her weekly wage? _____

_____

_____

QUESTION **9** Emily earns $1560 a fortnight, working 30 hours a week. Find her hourly rate of pay.

_____

_____

_____

Consumer arithmetic

Topic 3: Overtime

QUESTION **1** Roger is paid a basic rate of $28.30 per hour. Calculate his hourly overt̶i̶m̶e̶ ̶r̶a̶t̶e̶ of pay when this is paid at

a   time-and-a-half

_____

_____

b   double time

_____

_____

QUESTION **2** Susan's normal pay rate is $21.90 per hour. What will she earn for working

a   7 hours at time-and-a-half?

_____

_____

b   6 hours at double time?

_____

_____

QUESTION **3**

a   Peta receives a gross pay of $1250 for a 40 hour week. Calculate Peta's hourly rate of pay.

_____

_____

b   In one busy week, Peta works overtime of $11\frac{1}{2}$ hours at time-and-a-half. Find her gross pay for

that week. _____

_____

QUESTION **4** Tom is an electrician and gets paid $1600 for a 40-hour week. In one week he works 18 hours overtime, of which 12 hours are at time-and-a-half and 6 hours at double time. What are his earnings that week? _____

_____

_____

QUESTION **5** Samantha worked for an hour at time-and-a-half and was paid $36.90.

a   What is her normal hourly rate of pay? _____

_____

_____

b   How much would she earn in an hour of double time? _____

_____

_____

Consumer arithmetic

Topic 4: Commission

QUESTION **1** Merilee receives a commission of 8% on sales. How much commission she receive in a week in which her sales total $18 000? _____

_____

_____

QUESTION **2** Chris is a car sales representative and is paid a retainer (basic wage) of $400 per week a commission of 4% on sales made. Find his weekly income in a week in which he sells a car to the value of

a $68 000   **b** $110 000

   _____   _____

   _____   _____

QUESTION **3** Paige is a sales person and earns $320 a week plus 4·5% commission on sales. Her weekly sales total is $80 000. Find

a   her commission   **b**   her total earnings for the week

   _____   _____

   _____   _____

QUESTION **4** Ty is a real estate agent and receives 2·5% commission on the first $200 000, 1·5% on the next $100 000, 1·25% on the next $100 000 and 1% on the value thereafter. Find his commission for selling a property worth $825 000._____

_____

_____

QUESTION **5** Jenny sells cosmetics and is paid 15·25% on all sales.

a   What is her income if she sells $2560 worth of cosmetics in a week? _____

   _____

   _____

b   How much would she need to sell (to the nearest dollar) to have an income of $750? _____

   _____

   _____

Consumer arithmetic

Topic 5: Piecework and casual work

QUESTION **1** John works on a casual basis, earning $18.60 an hour on week days and _____ an hour on weekends. How much does he earn in a week where he works 35 hours during the w____ ____ 8 hours on a weekend? _____

_____

_____

QUESTION **2** Joanne is paid a piecework rate for sewing buttons onto shirts. The rate is $1.85 for each shirt. How much does she earn for buttoning 300 shirts in a day? _____

_____

_____

QUESTION **3** Dominic is a fruit-picker and is paid $2.30 for every full bag of fruit he picks. How much will he earn in a day when he picks 83 bags of fruit? _____

_____

_____

QUESTION **4** Sebastian works as a packer on a fruit plantation and is paid $2.00 per box with a bonus of 90 cents for each box packed in excess of 100 boxes per day. Find his income per day in which he packs 135 boxes. _____

_____

_____

QUESTION **5** Damien works in a factory on a basic wage of $250 a week. In addition to this, he is paid a bonus of 50 cents per article for every article in excess of the weekly quota of 2000. How much will he earn in a week in which 4300 articles are made? _____

_____

_____

QUESTION **6** James makes leather belts and is paid $2.55 per belt. How much does he earn for making 230 belts? _____

_____

_____

Consumer arithmetic

Topic 6: Allowances and holiday loading

QUESTION **1** Anita earns $72 560 per annum. Her pension fund contributions amo_____% of her annual salary. How much are the pension fund payments per annum? _____

_____

_____

QUESTION **2** Calculate Mary's holiday loading, given that she is paid $17\frac{1}{2}\%$ on 4 weeks pay and she earns $1890.95 per fortnight._____

_____

_____

_____

QUESTION **3** May received a $17\frac{1}{2}\%$ holiday loading of $852.80 on 4 weeks' wages. What is her weekly wage? _____

_____

_____

_____

QUESTION **4** Jeremy receives an annual salary of $72 580 from the Department of Education. He receives $17\frac{1}{2}\%$ holiday loading on the four weeks' holiday pay period. Calculate the following.

a   his normal pay for 4 weeks

_____

_____

_____

_____

b   his holiday loading

_____

_____

_____

_____

c   his holiday pay for 4 weeks

_____

_____

_____

_____

d   If he saves 35% of his total holiday pay for 4 weeks, how much are his savings?

_____

_____

_____

_____

Consumer arithmetic

Topic 7: Deductions

QUESTION **1** John works as a teacher and his yearly salary is $66 900. His fortnightly ~~deductions~~ include income tax $870, medicare levy $52 and his union fees $8.90. Calculate his for~~tnightly~~ take-home pay (net pay). _____

_____

_____

QUESTION **2** Angela received a gross wage of $1230.60 per week. The payments deducted from her weekly wage are tax, 33% of gross weekly wage; health insurance, $35.40 per week; superannuation, 31 units at $2.75 per unit. Calculate her net pay for the week. _____

_____

_____

QUESTION **3** Melissa earns $2090.40 gross per fortnight. Her pay deductions are $435.20 for tax, $175 for superannuation, $7.20 for union fees and $40.10 for health insurance. Find Melissa's net pay for the fortnight. _____

_____

_____

QUESTION **4** Marcus' gross annual salary is $63 870. (use 1 year = 52 weeks)

a   What is his fortnightly income? _____

_____

b   If his deductions are $720.35 in income tax, $20.45 in union fees and $148.30 in superannuation contributions, find his net pay per fortnight. _____

_____

_____

c   What percentage of Marcus' gross pay is deducted? _____

_____

QUESTION **5** Nancy's gross annual income is $53 430. She paid a total of $8365 in deductions, including income tax. Calculate her net weekly pay. (use 1 year = 52 weeks)_____

_____

_____

Consumer arithmetic

Topic 8: Income tax

QUESTION **1**

Tax rates for 2004–2005 financial year	
Taxable income	Tax on this income
$0–6000	Nil
$6001–$21 600	17c for each $1 over $6000
$21 601–$58 000	$2652 plus 30c for each $1 over $21 600
$58 001–$70 000	$13 572 plus 42c for each $1 over $58 000
$70 001 and over	$18 612 plus 47c for each $1 over $70 000

John's gross income is $78 670. His total deductions are $4630.

a Find his taxable income.

_____

_____

_____

b Calculate the amount of tax due.

_____

_____

_____

c If he pays $485 per week in tax, how much refund should he receive for the year?

_____

_____

QUESTION **2** Use the table given above to work out the following.

a Jo's taxable income was $48 000.

    i What tax was payable on her income of $48 000? _____

_____

    ii What percentage of taxable income was paid in tax? Answer correct to 2 decimal places.

_____

_____

    iii How much did Jo take home each week after tax had been deducted? (1 year = 52 weeks)

_____

_____

b Georgie has a taxable income of $31 650.

    i Find the tax payable. _____

_____

_____

    ii Isabel's taxable income is $4782 more than that of Georgie. Find how much more tax Isabel pays than Georgie. _____

_____

_____

Consumer arithmetic

Topic 9: Budgeting

QUESTION **1** Steve works with the department of Education and his take-home pay is ⟨…⟩ 60 per fortnight. His expenses are shown in the table.

a What is Steve's annual take-home pay?

_____

_____

_____

b What are his savings per fortnight?

_____

_____

c How much can he save towards his holidays each year?

_____

_____

Item	Fortnightly ⟨…⟩
Rent	$300
Food	$160
Telephone	$30
Clothing	$120
Car	$110
Entertainment	$90
Other Expenses	$140
Savings	$_____
Total	$1865.60

QUESTION **2** Theo earns $600 per month from a part-time job, receives $120 for helping his parents, and $150 for helping an organisation. Every month his expenses are $100 for food, $40 for repayments on a loan, and $80 on school needs. He wants to save $200 per month. Whatever is left he divides equally between clothes, entertainment and car expenses.

a Make up a monthly budget for Theo.

b What percentage of his total income does he save? _____

_____

_____

_____

_____

_____

_____

Income ($)	Fixed expenses ($)	Variable expenses ($)

Consumer arithmetic

Topic 10: Profit and loss

QUESTION **1** James bought some shares for $2540 and sold them for $3200. Find:

a   his profit on the sale _____

_____

_____

b   his profit as a percentage of the cost price _____

_____

_____

c   his profit as a percentage of the selling price _____

_____

_____

QUESTION **2** Nancy bought a car for $20 600 and sold it to David at a loss of 40% after it was involved in an accident. David repaired it and then sold it, making a profit of 50% on his purchase price.

a   How much did David pay for the car? _____

_____

_____

b   For how much did David sell the car? _____

_____

_____

QUESTION **3** A book is sold for $56.80 including 10% GST.

a   How much GST is charged? _____

_____

_____

b   What is the selling price of the book without GST? _____

_____

_____

QUESTION **4** A bicycle is on sale for $450. This is 75% of the regular price. What is the regular price?

_____

_____

_____

_____

_____

Consumer arithmetic

Topic Test

Time allowed: 15 minutes　　　　　　　　　　**Total marks = 15**

Marks

1　Anna receives a commission of 8·5% on all her sales. How much commission does she earn in a week in which her sales total $3600?

　(A)　$423.53　　　(B)　$306　　　(C)　$3294　　　(D)　$3006　　　☐1

2　Rhonda has a salary of $66 573 p.a. Her fortnightly pay is

　(A)　$1386.94　　　(B)　$1280.25　　　(C)　$2560.50　　　(D)　$1276.74　　　☐1

3　Mitchel receives $756 for a 40-hour week. What is he paid for each hour worked?

　(A)　$28.35　　　(B)　$23.63　　　(C)　$37.80　　　(D)　$18.90　　　☐1

4　Melissa's hourly rate of pay is $15.20 for the first 36 hours and time-and-a-half for every extra hour. How much is she paid for 45 hours?

　(A)　$684　　　(B)　$752.40　　　(C)　$820.80　　　(D)　$1026　　　☐1

5　Alex is paid $25.20 per hour and works 38 hours per week. Find his holiday pay for 4 weeks including a $17\frac{1}{2}$% holiday loading?

　(A)　$3830.40　　　(B)　$4500.72　　　(C)　$670.32　　　(D)　None of these　　　☐1

6　If 9% of an amount is $1800, then the amount is

　(A)　$200　　　(B)　$2000　　　(C)　$20 000　　　(D)　$200 000　　　☐1

7　A dealer sells an article for $250 and makes a profit of $50. His percentage profit on the cost price is?

　(A)　15%　　　(B)　20%　　　(C)　25%　　　(D)　30%　　　☐1

8　A $1850 mobile phone is discounted by 15%. The new price for the mobile phone is

　(A)　$277.50　　　(B)　$2127.50　　　(C)　$1572.50　　　(D)　$2446.63　　　☐1

9　An agent gets a commission of 12%. If the sales are $9600, how much is the commission?

　(A)　$1152　　　(B)　$8448　　　(C)　$10 752　　　(D)　None of these　　　☐1

10　A shopkeeper buys a TV for $1500 and sells it for $2000. His profit as a percentage of the cost price is

　(A)　50%　　　(B)　150%　　　(C)　$33\frac{1}{3}$%　　　(D)　$66\frac{2}{3}$%　　　☐1

11　Michael was paid $561.60 for 18 hours of work. What was his hourly rate of pay?

　(A)　$29.20　　　(B)　$30.20　　　(C)　$31.20　　　(D)　$32.20　　　☐1

12　The tax on a salary of $58 485, paid at $11 772 plus 42 cents for each $1 over $52 000 is:

　(A)　$2723.70　　　(B)　$14 495.70　　　(C)　$24 563.70　　　(D)　None of these　　　☐1

13　David paid $180 for a jumper after a discount of 40%. How much did he save?

　(A)　$72　　　(B)　$108　　　(C)　$252　　　(D)　$120　　　☐1

14　A shirt with a mark-up of 25% is sold for $120. How much profit is made, to the nearest dollar?

　(A)　$24　　　(B)　$29　　　(C)　$31　　　(D)　$33　　　☐1

15　Mark receives a retainer of $300 per week and 15% commission on all sales. How much does he earn in a week in which he sells $10 000 worth of goods?

　(A)　$1500　　　(B)　$1800　　　(C)　$1200　　　(D)　$545　　　☐1

Total marks achieved for PART A　☐15

Consumer arithmetic
Topic Test
PART B

Time allowed: 15 minutes   **Total marks = 15**

Marks

Question 1

a Find David's weekly wage if he works for 40 hours at the rate of $25.60 per hour.

_____ ☐ 1

b The annual salary of a person is $70 650. Find his weekly income.

_____ ☐ 1

c An article was marked $225 and was sold for $150. What was the percentage discount?

_____ ☐ 1

d An article costing $120 is sold at a loss of 25% of the cost price. Find the selling price.

_____ ☐ 1

e A landlord charges an annual rent of $15 381.60. Find the monthly rent.

_____ ☐ 1

Question 2

a John bought a house for $350 000 and spent a further $90 000 on renovations. He then sold it, making a profit of 30%.

   i How much profit did he make?

_____ ☐ 1

   ii What was the selling price of the house?

_____ ☐ 1

b Cameron earns $18.70 an hour for a $37\frac{1}{2}$-hour week, while Cathy earns $15.40 an hour for a 40-hour week.

   i How much does Cameron earn in a week?

_____ ☐ 1

   ii How much does Cathy earn in a week?

_____ ☐ 1

   iii Who earns more, and by how much?

_____ ☐ 1

Question 3

a Nathan receives a salary of $66 900 per annum.

   i Calculate the amount he will receive each fortnight.

_____ ☐ 1

   ii He pays 5% of his gross salary in superannuation. Calculate his fortnightly superannuation contribution.

_____ ☐ 1

b Jaani is paid a wage of $32.85 per hour.

   i If Jaani works a normal 38-hour week, calculate his weekly wage.

_____ ☐ 1

   ii What will Jaani's wage be in a week when, in addition to his normal hours, he works 5 hours at time-and-a-half and 3 hours at double time?

_____ ☐ 1

   iii Calculate the total amount Jaani will receive for his 4 weeks' annual leave if he is paid an annual leave loading of $17\frac{1}{2}$% on 4 weeks' normal wages.

_____ ☐ 1

Total marks achieved for PART B ⟋15