



# Financial mathematics - earning money

## Topic 2 - Wages

**QUESTION 1** Angela works a basic week of 40 hours and her hourly rate of pay is \$12.50. Calculate her weekly wage.

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**QUESTION 2** Michael works 35 hours per week and his weekly wage is \$756. Find his hourly rate of pay.

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**QUESTION 3** A painter works a 38-hour week for an hourly rate of \$15.95. Find his total weekly wage.

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**QUESTION 4** Susan works in a shop and is paid \$12.40 per hour. Calculate Susan's wage in a week when she works 40 hours.

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**QUESTION 5** Cleve works 8 hours a day and a nine-day fortnight. If his pay rate is \$23.15 per hour, what is his fortnightly pay?

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**QUESTION 6** Petra is paid \$1845.90 per fortnight. If she works 35 hours per week, what is her hourly rate of pay?

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**QUESTION 7** Yousef is paid \$163.50 for working  $7\frac{1}{2}$  hours. What will he be paid for working 5 hours at the same rate of pay?

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**QUESTION 8** Reno works 6 hours on Monday, 8 hours on Tuesday, 7 hours on Wednesday, 9 hours on Thursday and 6 hours on Friday. If he is paid \$18.20 per hour, what is his weekly pay?

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## Topic 3 - Overtime

**QUESTION 1** A man is paid a basic rate of \$14.70 per hour. Calculate his hourly overtime rate of pay when this is paid at:

a time-and-a-half

b double-time

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**QUESTION 2** Kelli's normal pay rate is \$16.80 per hour. What will she earn for working:

a 5 hours at time-and-a-half

b 3 hours at double-time-and-a-half

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**QUESTION 3**

a John receives a gross pay of \$850 for a 40-hour week. Calculate John's hourly rate of pay.

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b In one busy week, in addition to his normal 40 hours, John works the following overtime; 6 hours on Saturday at time-and-a-half and 5 hours on Sunday at double-time. Find John's gross pay for that week.

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**QUESTION 4** Peter is paid an hourly rate of \$15.60. His normal working day is 8 hours. He gets paid time-and-a-half for hours worked over 8 hours but less than or equal to 11 hours and double-time for hours worked over 11 per day.

a How much does he earn for a normal 5 day working week?

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b What does he earn in a week where he works two 8 hour days, one 10 hour day, one 11 hour day and one 12 hour day?

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**QUESTION 5** Ronnie is an electrician and gets paid \$1200 for a 40-hour week. In one week she works 12 hours overtime, of which 8 hours is at time-and-a-half and 4 hours is at double-time. What are her earnings that week?

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# Financial mathematics - earning money

## Topic 4 - Penalty rates and special allowances

**QUESTION 1** Thomas works on a construction site and is paid a special allowance of \$6.20 per hour. Find his total weekly wage, given that his basic wage is \$28.70 per hour for a 40-hour week.

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**QUESTION 2** Joe and Troy are builder's labourers. Their award rate of pay is \$13.84 per hour.

a How much does Troy receive for a normal 40 hour week?

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b Troy is paid a special allowance of 46 cents per hour for working in wet conditions. How much will Troy receive in a week where 7 hours are under wet conditions?

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c The award allows an extra \$1.54 per hour for working with toxic substances. If Joe spends the whole 40 hour week working with toxic substances, find his weekly wage.

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**QUESTION 3** Adrian gets \$875.80 per week. As a result of an indexation decision, his award rate of pay is increased by 4.5%. Find his new weekly wage.

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**QUESTION 4** Michelle gets paid \$12.50 per hour. She is paid 40% extra per hour on the weekends. Find her hourly rate of pay on the weekends.

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**QUESTION 5** Mark's normal wage is \$880.80 for a 40-hour week. He worked overtime and earned \$1233.12 in one week.

a Find his normal hourly rate.

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b How much extra did he get for overtime?

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c How many hours of overtime did he work if he was paid double-time for the overtime worked?

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# Financial mathematics - earning money

## Topic 5 - Annual leave loading

**QUESTION 1** Zac's weekly wage is \$627.20.

a What does he earn for 4 weeks?

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b Zac receives an annual leave loading of  $17\frac{1}{2}\%$  on 4 weeks holiday pay. Find the amount of the annual leave loading.

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c What is Zac's total holiday pay?

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**QUESTION 2** Michelle gets an annual salary of \$48 630.40. If she receives  $17\frac{1}{2}\%$  holiday loading on the 4-week holiday period, calculate:

a her normal pay for 4 weeks

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b her holiday loading

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c her holiday pay for 4 weeks.

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**QUESTION 3** William earns \$19.40 per hour and works a 35 hour week.

a What will William receive for 4 weeks?

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b Find William's total holiday pay if he receives a holiday loading of  $17\frac{1}{2}\%$  on 4 weeks' pay.

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**QUESTION 4** Maddy works for the Department of Social Security on an annual salary of \$52 460. If she receives  $17\frac{1}{2}\%$  holiday loading on the four weeks holiday pay period, calculate her total holiday pay for the 4 weeks.

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# Financial mathematics - earning money

## Topic 6 - Commission

**QUESTION 1** Yasmin receives a commission of 5% on sales. How much commission will she receive in a week in which her sales total \$11 000?

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**QUESTION 2** David is a car sales representative and is paid a retainer (basic wage) of \$350 per week and a commission of 3% on sales made. Find his weekly income in a week in which he sells a car to the value of:

a \$45 000

b \$70 000

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**QUESTION 3** Meena is a sales person and earns \$250 a week plus 3.5% commission on sales. Her weekly sales total \$60 000. Find:

a her commission

b her total earnings for the week

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**QUESTION 4** Joshua is a real estate agent and receives 2% commission on the first \$200 000,  $1\frac{1}{2}\%$  on the next \$100 000,  $1\frac{1}{4}\%$  on the next \$100 000 and 1% on the value thereafter. Find his commission for selling a property worth \$650 000.

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**QUESTION 5** Ian works as a sales representative for a medical firm and receives a basic salary of \$300 per week plus  $7\frac{1}{2}\%$  commission on that part of sales which exceed \$3000 per week. Find his earnings for a week in which he sells medical supplies worth \$8500.

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# Financial mathematics - earning money

## Topic 7 - Piecework and royalties

**QUESTION 1** An apricot picker is paid 19 cents for every full bucket she picks. How much will she earn in a day when she picks 78 buckets of apricots.

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**QUESTION 2** Janny works in a clothing factory and is paid \$8.50 for each garment completed. What is her weekly wage if she completes 154 garments in one week?

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**QUESTION 3** Matthew is paid a royalty of 14% on the sales of his book. Sales for the first six months total \$156 348. How much royalty does he receive?

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**QUESTION 4** Tim works in a factory on a basic wage of \$300 a week. In addition to this he is paid a bonus of 10 cents per article, for every article in excess of the weekly quota of 4000. How much will he earn in a week in which 6500 articles are made?

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**QUESTION 5** Brent works as a packer on a banana plantation and is paid \$2.00 per box with a bonus of 75 cents for each box packed in excess of 100 boxes per day. Find his income for a day in which he packs 165 boxes.

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**QUESTION 6** Celeste receives royalties on the sales of her book. She receives 10% of the recommended retail price of the first 5000 copies sold and 12% on any further copies. In the first year sales total 12 514 copies and the retail price was \$21.95. How much does Celeste receive?

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# Financial mathematics - earning money

## Topic 8 - Pensions and government allowances

**QUESTION 1** Natasha earns \$45 650 per annum. Her pension fund contributions amount to 9% of her annual salary. How much are the pension fund payments per annum?

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**QUESTION 2** When Emma retires at the age of 60, her pension will be 70% of the salary received during her last working year. Find her weekly superannuation payment if, during her last year of work, her salary was \$51 800.60

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**QUESTION 3** Employees of the NSW State Public Service contribute to a superannuation scheme which guarantees a pension on retirement. The payment is calculated on the number of units contributed to. The number of units increase with increased salary. Each unit of superannuation results in a payment of \$11.60 per fortnight on retirement. Michael retires on a salary of \$72 890 and is entitled to 150 units.

- a What is his fortnightly pension?                      b How much will he receive per year?

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- c What percentage of his retirement salary does he receive on an annual basis?

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**QUESTION 4** A single person over the age of 65 is entitled to an age pension of \$458.60 per fortnight. If the person owns his or her home, he or she is allowed other assets of \$149 500. For every \$1000 of assets over \$149 500 the pension reduces by \$5 per fortnight. The person is also allowed an income of up to \$120 per fortnight. For every dollar earned over \$120, the pension reduces by 40 cents.

- a Frank, a single pensioner, owns his home and has assets of \$215 500. He has no other income. How much is Frank's fortnightly pension?

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- b Maria has assets of \$56 500 apart from her home. She earns \$825 per fortnight from a part-time job. What is Maria's pension?

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- c George has assets of \$167 000 apart from his home. He receives an income of \$160 per fortnight from his investments. How much is his fortnightly pension?

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# Financial mathematics - earning money

## Topic 9 - Deductions

**QUESTION 1** Alex works as a dentist in a dental hospital and his yearly salary is \$64 000. His fortnightly deductions include income tax \$980, Medicare levy \$45 and union fees \$6.50. Calculate his fortnightly take-home pay (net pay).

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**QUESTION 2** Amanda receives a gross wage of \$845.80 per week. The payments deducted from her weekly wage are tax, 35% of gross weekly wage; health insurance, \$29.50 per week; superannuation, 22 units at \$2.50 per unit. Calculate her net pay for the week.

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**QUESTION 3** Jane earns \$2450 gross per fortnight. Her pay deductions are \$465.10 for tax, \$150 for superannuation, \$5.20 for union fees and \$30.60 for health insurance. Find Jane's net pay per fortnight.

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**QUESTION 4** Andrew's gross annual salary is \$58 650. (Use 1 year = 52 weeks)

- a What is his fortnightly income?

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- b If his deductions are \$630.65 in income tax, \$20.15 in union fees and \$125.60 in superannuation contributions, find his net pay per fortnight.

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- c What percentage of Andrew's gross pay is deducted?

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**QUESTION 5** Alan's gross annual income is \$48 380. He paid a total of \$9268 in deductions, including income tax. Calculate his net weekly pay. (Use 1 year = 52 weeks)

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# Financial mathematics - earning money

## Topic 10 - Accounts with financial institutions

**QUESTION 1** Jed's bank account has a \$5 per month account service fee. How much does Jed pay in bank fees in a year?

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**QUESTION 2** Lucy's bank account has no monthly fee and allows her 6 free electronic transactions per month. (These include using the bank's ATM, EFTPOS, phone banking and internet banking.) Any excess transactions are charged at 50 cents each.

a How much will Lucy pay in fees in a month where she makes 15 electronic transfers?

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b Lucy could instead choose to pay a monthly fee of \$6 per month. How many electronic transactions would she need to make in a month in order to be better off paying a monthly fee?

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c What advice could you give Lucy in operating her account?

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**QUESTION 3** Katrina has an account with a financial institution with the following terms. Service fee of \$7 per month, minimum monthly balance of \$500 to avoid monthly service fee, 10 free withdrawals per month, excess withdrawal fee of 80 cents per transaction. The table shows Katrina's account for the first six months of the year.

Month	Minimum Balance	Number of withdrawals
January	\$250	8
February	\$370	12
March	\$510	10
April	\$600	16
May	\$550	6
June	\$180	14

a In which month(s) will Katrina pay no fees?

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b Find the total fees paid over the six months.

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# Financial mathematics - earning money

## Topic 11 - Creating a budget

**QUESTION 1** Each month Georgie earns \$600 from a part-time job, receives \$100 as an allowance from her parents and earns \$150 babysitting. Her monthly expenses are \$180 for music lessons, \$120 for repaying a loan and \$130 for school needs. She wants to save \$150 per month. Whatever is left she divides equally between clothes, entertainment and car expenses.

a Make a monthly budget for Georgie.

b What are her car expenses?

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c What percentage of her total income does she save?

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Income (\$)	Expenses (\$)

**QUESTION 2** Michael is a year 11 student and receives \$25 per week as pocket money from his parents. He also earns \$35.50 per week by working part-time. His travel expenses are \$10 and miscellaneous expenses are \$15. The rest of his income is saved.

a Make up a weekly budget for Michael.

b How much does he save?

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c What percentage of his total income does he save?

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Income (\$)	Expenses (\$)

# Financial mathematics - earning money

## Topic 12 - Operating a budget

**QUESTION 1** Sue works in a bank and her take-home pay is \$974.65 per fortnight. Her expenses are shown in the table.

a What is Sue's annual income?

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b What are her savings per fortnight?

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c How much can she save towards her holidays each year?

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Item	\$
Rent	250.00
Food	155.00
Telephone	75.00
Clothing	100.00
Car	125.00
Entertainment	90.00
Other expenses	10.00
Savings	_____
<b>Total</b>	<b>974.65</b>

**QUESTION 2** Natalie earns \$300 per month from a part-time job, receives \$60 for helping her parents and \$50 for helping an organisation. Every month her expenses are \$90 for food, \$30 repayments on a loan and \$70 on school needs. She wants to save \$85 per month. Whatever is left she divides equally between clothes, entertainment and car expenses.

a Make up a monthly budget for Natalie.

b What percentage of her total income does she save?

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

# Financial mathematics - earning money

## Topic 13 - Household bills

**QUESTION 1** For the given Telstra bill, answer the following questions.

a What is the date of issue?

b What is the bill number?

c What is the total amount payable?

d What is the difference between the total of this bill and the total of the last bill?

e When is the payment due?

f What are the call charges?

g What are the charges for service and equipment?

**Telstra Bill**  
Telstra Corporation Limited  
ACN 051 775 558

Account number: 950 2282 222    Bill number: T 596 545 432-3    Date of issue: 30 Dec 2000

Opening Balance: \$168.83    We received: \$ 148.62cr    Balance: \$3.00    Total of this bill: \$155.35

MR A. GARLAND  
283 PACIFIC PDE  
DEE WHY NSW 2059

**Total amount payable: \$155.35**  
Payment to be made by: 30 Dec 2000

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Items    Account Summary    Your Reference 029392 1187    \$

84    • Call charges    to 09 Dec    74.11

85    • Service and equipment    to 09 Mar    81.25

**Total of this bill: \$155.35**

Calling Patterns Compared with Last Bill

Local calls	down by	\$11.83
STD calls	down by	\$1.16
calls to mobiles	down by	\$2.76
Information calls	down by	\$7.19

**QUESTION 2** Answer the following questions in relation to the gas bill shown.

a What is the payment reference number?

b When is the payment due?

c What is the total amount payable for this bill?

d What is the difference between the total of this bill and the total of the last bill?

e What is the meter number?

f How many units were consumed?

g If 1 unit = 38.196772 megajoules (MJ), convert the gas units consumed in part f to the number of megajoules (MJ). (Answer to the nearest MJ.)

h If 1 MJ is charged at the rate of 1.0595 cents, what is the total cost of the megajoules consumed during this period?

i How much is the supply fee?

Customer Number: 0922222    **AGL**  
AGL Energy Limited  
ACN 074 339 416

Payment Reference Number: 6120 2052 5000 342  
Invoice Number: 00736

24 Hours Gaslines 131 207  
24 Hour Keycall/Text Service 300 814 207  
Fuel Hotline (31) 59  
AGL Web Assistance 0284 459

MR B. DUNSON  
1438 EPPINGS ROAD,  
LANE COVE NSW 2055

Payment Due: 24/12/2000

Net Account	Payments	Balance Off	Use Charges	Credits	Total Due
\$65.28	\$15.21	0.00	\$17.22	0.00	\$129.22

Netural Gas Costs    See over for details    \$ 129.22  
Total Due    \$129.21

FOR WATER, AGL offers 24 hour report and replacement, plus 45 credits toward free on pay hot water. Conditions apply. call 131 424.

Supply Address 1435 Epping Road, Lane Cove NSW 2055

Average No Per Day	Units Consumed Per Day	Average Cost of Gas Per Day
329	53	\$1.16

Meter Type	Number	Current Date	Current Reading	Previous Date	Previous Reading	Units Consumed
11	3415454	25/11/2000	6200	28/08/2000	7749	289

# Financial mathematics - earning money

## Topic Test

## PART A

**Instructions** This part consists of 10 multiple-choice questions  
Each question is worth 1 mark  
Calculators may be used  
Fill in only ONE CIRCLE for each question

**Time allowed: 30 minutes**

**Total marks = 10**

- 1 Kate's hourly rate of pay is \$9.50 for the first 36 hours and time-and-a-half for every extra hour. How much is she paid for 41 hours?  
(A) \$389.50      (B) \$413.25      (C) \$460.75      (D) \$584.25
- 2 Dale has a salary of \$48 984 p.a. His fortnightly pay is:  
(A) \$1884      (B) \$1959.36      (C) \$2041      (D) \$2226.55
- 3 Barry receives \$690.40 for a 40 hour week. What is he paid for each hour worked at time-and-a-half?  
(A) \$8.63      (B) \$17.26      (C) \$25.89      (D) \$43.15
- 4 Hannah receives a commission of 6.5% on all her sales. How much commission does Hannah earn in a week in which her sales total \$2800?  
(A) \$182      (B) \$232.14      (C) \$430.77      (D) \$1820
- 5 Caleb receives a royalty of 15% on the market price on sales of a book he has written. If the book sells for \$12.95, find Caleb's total royalties for a period when 2180 books have been sold.  
(A) \$1882.07      (B) \$2525.10      (C) \$2823.10      (D) \$4234.65
- 6 Julian receives an award rate of pay of \$18.52 per hour. He receives an additional 32 cents per hour for working in hot conditions. What will Julian earn for working 14 hours in hot conditions?  
(A) \$263.76      (B) \$82.97      (C) \$448.00      (D) \$707.28
- 7 Courtney is paid \$21.20 per hour and works 35 hours per week. Find her holiday pay for 4 weeks, including a 17½% holiday loading.  
(A) \$519.40      (B) \$1696.00      (C) \$3261.40      (D) \$3487.40
- 8 Jacob's bank account has a \$6 monthly fee plus an excess withdrawal fee of 40 cents for every withdrawal above the free limit of 15 per month. In a month in which Jacob makes 22 withdrawals, how much does he pay in fees?  
(A) \$8.40      (B) \$8.80      (C) \$12.00      (D) \$14.80
- 9 Morgan's local council sent a bill for water rates. It showed the following information:

Meter Number	Previous Reading (kL)	Present Reading (kL)	Consumption (kL)	Water Usage Charge
87912	222	251	29	\$0.8500 per kL

The amount Morgan will need to pay is:

- (A) \$24.65      (B) \$188.70      (C) \$213.35      (D) \$246.50



# FINANCE MATHS - EARNING MONEY

## TOPIC 1:

1. 43550 every year

$$\frac{43550}{52} = \$837.5 \text{ each week}$$

2. \$72852 p.a

2 weeks in a fortnight

$$\frac{\$72852}{26} = \$2802 \text{ fortnightly pay}$$

3. \$659 per week

$$\$659 \times 52 = \$34268 \text{ annually}$$

4. \$67440 per year

$$a) \frac{\$67440}{12} = \$5620 \text{ monthly}$$

$$b) \frac{\$5620}{200} = \$28.1 \text{ hourly}$$

5. \$7774 + 624

$$a) \frac{\$7774 + 624}{52} = \$149512 \text{ weekly}$$

$$b) \text{ No, because his daily pay is } \frac{149512}{7} = \$21358.9 \text{ rounded}$$

## SOLUTIONS

6. \$3240 per month

$$a) \$3240 \times 12 = \$38880 \text{ per year}$$

$$b) \frac{\$38880}{52} = \$747.70 \text{ per week}$$

## TOPIC 2:

$$1. 40 \times \$12.50 = \$500 \text{ weekly}$$

$$2. \frac{\$756}{35} = \$21.6 \text{ hourly rate}$$

$$3. 38 \times \$15.95 = \$606.1 \text{ weekly}$$

$$4. 40 \times \$12.4 = \$496 \text{ weekly}$$

5. Total hours worked =

$$8 \times 9 = 72 \text{ hours}$$

$$72 \times \$23.15 = \$1666.8 \text{ Fortnightly}$$

6. 35 hours a week =

$$35 \times 2 = 70 \text{ hours or fortnight}$$

$$\frac{\$1845.9}{70} = \$26.37 \text{ hourly}$$

$$7. \frac{\$163.5}{7.5} = \$21.8 \text{ hourly rate}$$

$$\$21.8 \times 5 = \$109$$

8. 6 + 8 + 7 + 9 + 6 = 36 hours.

$$36 \times \$18.2 = \$655.2$$

## Topic 3.

$$1. a) \$14.70 \times 1.5 = \$22.05 \text{ at time and half}$$

$$b) \$14.70 \times 2 = \$29.4 \text{ at double time}$$

$$2. a) \text{ Normal Rate } \$16.80 / \text{hour}$$

$$\$16.80 \times 1.5 = \$25.2 \text{ at time and half}$$

$$5 \times \$25.2 = \$126 \text{ for 5 hours at time and half}$$

$$b) \text{ Double time and a half} = 2.5 \times \text{normal hourly rate}$$

$$\$16.8 \times 2.5 = \$42$$

$$\$42 \times 3 = \$126 \text{ for 3 hours at double time and a half}$$

$$3. \frac{\$850}{40} = \$21.25 \text{ hourly}$$

$$b) \text{ Time and half} = \$21.25 \times 1.5 = \$31.875 \text{ hourly}$$

$$\text{Double time} = \$21.25 \times 2 = \$42.5 \text{ hourly}$$

$$\text{Total pay} = \$850 + (6 \times \$31.875) + (5 \times \$42.5)$$

$$\$850 + \$191.25 + \$212.5 = \$1253.75$$

4 a) \$15.60 hourly  
Normal week = 8 x 5 = 40 hours

$$40 \times \$15.6 = \$624 \text{ weekly}$$

b) 8 hours at time and half and one hour at double time.

$$\$15.6 \times 1.5 = \$23.4$$

$$\$15.6 \times 2 = \$31.2$$

$$= \$624 + (8 \times \$23.4) + \$31.2$$

$$= \$624 + \$187.2 + \$31.2$$

$$= \$842.4$$

$$5. \frac{\$1200}{40} = \$30 \text{ an hour}$$

$$\$30 \times 1.5 = \$45$$

$$\$30 \times 2 = \$60$$

$$\$1200 + (8 \times \$45) + (4 \times \$60)$$

$$= \$1200 + \$360 + \$240$$

$$= \$1800 \text{ she earns that week.}$$

### TOPIC 4:

1. Total hourly wage =

$$\$28.7 + \$6.20 = \$34.9$$

$$\$34.9 \times 40 = \$1396 \text{ weekly}$$

2)  $\$13.84 \times 40 = \$553.6$

b)  $7 \times \$0.46 = \$3.22$  extra pay

$$\$553.6 + \$3.22 = \$556.82$$

c)  $(\$1.54 \times 40) + \$553.6 = \$615.2$

3.  $\$875.80$  Increased by 4.5%

$$= \$875.8 \times 1.045$$

$$= \$915.21 \text{ New weekly wage}$$

4.  $\$12.50 \times 1.4 = \$17.5$

5. a)  $\frac{\$880.80}{40} = \$22.02$  hourly

b)  $\$1233.12 - \$880.80 = \$352.32$

c) double time salary =

$$22.02 \times 2 = 44.04 \text{ hourly}$$

$$\frac{\$352.32}{44.04} = 8 \text{ hours of overtime}$$

### Topic 5:

1. a) weekly wage =  $\$627.20$

$$\$627.2 \times 4 = \$2508.8 \text{ every 4 weeks}$$

b)  $\$2508.8 \times 0.175 = \$439.04$

Annual leave loading

c)  $\$2508.8 + \$439.04 =$   
 $\$2947.84$

2. a)  $\frac{\$48630.40}{52} = \$935.2$  week

$$\$935.2 \times 4 = \$3740.8 / 4 \text{ weeks}$$

b)  $\$3740.8 \times 0.175 = \$654.64$

Holiday Loading

c)  $\$3740.8 + \$654.64 = \$4395.44$

3. a)  $\$19.4 \times 35 = \$679$  weekly

$$\$679 \times 4 = \$2716 / 4 \text{ weeks}$$

b)  $\$2716$  at 117.5%

$$= \$2716 \times 1.175 = 3191.3$$

4.  $\frac{\$52460}{52} = \$1008.85 / \text{week}$

$$4 \times \$1008.85 = \$4035.4 / 4 \text{ weeks}$$

$$\$4035.4 \times 1.175 = \$4744.60 \text{ Hold}$$

### Topic 6:

1.  $\$11000 \times 0.05 = \$550$

2)  $350 + (45000 \times 0.03) = \$1700$

b)  $350 + (70000 \times 0.03) = \$2450$

3 a)  $\$60000 \times 0.035 = \$2100$

b) Total Earnings =  $\$2100 + \$250$   
 $= \$2350$

4  $\$65000$

- 20000 at 2%
- 10000 at 1.5%
- 10000 at 1.75%
- 25000 at 1%

$$= 4000 + 1500 + 1250 + 2500 = \$9250$$

5  $\$8500 - 3000 = \$5500$

$\$5500$  commissioned at 7.5%  
 $= \$412.5$  commission.

$$\$300 + \$412.5 = \$712.5 \text{ weekly earnings}$$

### Topic 7:

1.  $0.19 \times 78 = \$14.82$

2.  $154 \times 8.5 = \$1309$

3.  $\$156348 \times 0.14 = \$21888.72$

4.  $6500 - 4000 = 2500$  express articles  
extra =  $2500 \times 0.1 = \$250$   
Total =  $\$250 + 300 = \$550$

5. Basic Income =  $165 \times 2 = \$330$

Bonus =  $65 \times 0.75 = \$48.75$

Total =  $\$330 + \$48.75 = \$378.75$

6) First 5000 =  $5000 \times 21.95 \times 0.1 = \$10975$

7514 copies above 5000  
 $7514 \times 21.95 \times 0.12 = \$19791.88$

Total =  $\$10975 + \$19791.88 = \$30766.88$

### Topic 8

1.  $\$45650 \times 0.09 = \$4108.5$   
 2.  $\$51800.6 \times 0.7 = \$36260.42$   
 $\frac{\$36260.42}{52} =$  weekly payments

of  $\$697.32$  fortnightly  
 3. a)  $150 \times \$11.6 = \$1740$

b)  $\$1740 \times 26 = \$45240$   
 (26 fortnights every year)

c) Percentage of retirement salary  
 $\frac{\$45240}{\$72890} \times 100 = 62\%$

4 a)  $215500 - 149500 = \$66000$  excess  
 $\frac{66000}{1000} \times 5 = \$330$  reduction in pension

$\$458.60 - \$330 = \$128.60$  pension

b)  $\$825 - \$120 = \$705$  excess  
 $\$705 \times 0.4 = \$282$  reduction

$\$458.60 - \$282 = \$176.60$  pension

c)  $\$167000 - \$149500 = \$17500$  excess  
 $\frac{17500}{1000} \times 5 = \$87.5$  reduction

$\$160 - 120 = \$40$  excess  
 $\$40 \times 0.4 = \$16$  reduction  
 $\$458.60 - 87.50 - 16 = \$355.10$  pension

### TOPIC 9:

1. fortnightly pay (gross)  
 $= \frac{\$64000}{26} = \$2461.55$

$\$2461.55 - 980 - 45.65 = \$1430.05$  net pay

2. After tax  $\Rightarrow \$845.8 \times 0.7 = \$592.06$

$\$592.06 - 29.50 - 22(2.5) = \$507.56$

3. After tax  $\Rightarrow 2450 - 465 - 10 = \$1984.90$

$\$1984.90 - \$150 - \$5 - 20 - 30.6 = \$1799.10$

4. a)  $\frac{\$58650}{26} = \$2255.77$

b)  $\$1479.37$

c)  $\approx 84.4\%$

5. After tax  $\$48380 - \$920 = \$39112$

weekly pay  $\frac{\$39112}{52} = \$752$

### TOPIC 10:

1.  $\$5$  Per Month  
 $\$5 \times 12 = \$60$  in bank fees a year

2. a)  $15 - 6 = 9$  excess transactions  
 $9 \times 0.5 = \$4.50$  in fees

b)  $\$6$  per month =  $\frac{6}{0.5} = 12$  excess transactions

12 + 6 transactions and she will break even

more than 18 and she will be better off paying the monthly fee.

c) If she is intending on doing more than 18 banking transactions every month, it is more money efficient to pay the monthly fee

3. a) March and May

b) January -  $\$7$  service fee

February -  $\$7$  service fee +  $\$1.60$  transaction fee

March -  $\$0$

April -  $\$4.80$  transaction fee

May -  $\$0$

June -  $\$7$  service fee +  $\$3.20$  transaction fee

TOTAL =  $\$30.60$

### Topic 11

a) INCOME

- \$600 (part time)
- \$100 (allowance)
- \$150 (babysit)

EXPENSES

- \$180 (music lesson)
- \$120 (loan repayment)
- \$130 (school needs)
- \$150 (savings)
- 
- \$270 DIVIDED equally
- \$90 clothes
- \$90 entertainment
- \$90 car expenses

b) \$90

c)  $\frac{150}{850} \times 100 = 17.6\% \text{ (1 d.p)}$

2. INCOME

- \$25 (pocket money)
- \$35.5 (Pt. time work)

EXPENSES

- \$10 (travel)
- \$15 (misc.)
- \$35.5 (savings)

b) \$35.50

c)  $\frac{35.5}{60.5} \times 100 = 58.7\% \text{ (1 d.p)}$

### Topic 12

1 a)  $974.65 \times 26 =$   
\$25340.9

b) \$169.65 savings

c)  $169.65 \times 26 =$   
\$4410.90

2. a) INCOME

- \$300 (Pt. time job)
- \$60 (helping parents)
- \$50 (helping organisation)

FIXED EXPENSE

- \$90 (FOOD)
- \$30 (LOAN)
- \$70 (SCHOOL)

VARIABLE EXPENS

- \$85 (SA)
- \$45 (CA)
- \$45 (EA)

TOTAL \$410	TOTAL \$190	TOTAL \$220
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b)  $\frac{85}{410} \times 100 = 20.7\% \text{ (1 d.p)}$

### TOPIC 13

1 a) 10 DECEMBER 2000

b) T 596 545 432-3

c) \$156.35

d) \$7.56

e) 30 DECEMBER 2000

f) \$74.11

g) \$82.25

2 a) 0109 J052 3000 342

b) 26/12/2000

d) \$38.06

e) JX 15454

f) 260

g) 9931.16072 MJ

h) \$105.22

i)  $127.22 - 105.22 =$   
\$22 supply fee

# TOPIC TEST PART A

1. B

2. A

3. C

4. A

5. D

6. A

7. D

8. B

9. A