

## Year 9 Term 1 Homework

<b>Student Name:</b> _____	<b>Grade:</b> _____
<b>Date:</b> _____	<b>Score:</b> _____

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## 4 Year 9 Term 1 Week 4 Homework

### 4.1 Consumer arithmetic

#### 4.1.1 Salaries and wages

- A salary is a fixed amount paid for one year's work. It is usually divided into equal weekly or fortnightly payments.
- A wage is a fixed amount paid for each hour's work for a specified number of hours per week.

#### Exercise 4.1.1

1. John is paid \$820 per week. Find his:

(a) annual salary \_\_\_\_\_

(b) fortnightly pay \_\_\_\_\_

2. William works 38 hours per week as a mechanic and earns \$32.45 per hours. Calculate his regular fortnight pay.

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3. Keith's annual salary is \$56,860. Find his fortnightly pay after receiving a 5% pay rise.

\_\_\_\_\_

\_\_\_\_\_

4. Michael is considering applying for these two jobs have been advertised in the newspaper.

**I** Pharmacist's assistant – Salary: \$1872 per fortnight.

**II** Security guard – Wage: \$26.50, 35 hours per week.

Which position offers the better pay and by how much per week?

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\_\_\_\_\_

\_\_\_\_\_

5. Due the the economic downturn, the employees at a small shoe factory have their pay reduced by 6%. Calculate the new annual pay for a worker who previously earned \$438 per week.

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**4.1.2 Other methods of payments**

1. A commission is usually quoted as a percentage of the value of goods sold. A small retainer of basic weekly may also be paid.
2. With piece work, the employee is paid a fixed amount of money for each item produced.
3. Casual employee do not work a set number of hours per week but are employed when needed. A fixed amount is paid for each hour's work.

**Exercise 4.1.2**

1. A car salesmen is paid a weekly retainer of \$180 plus a commission of 2% on the value of his sales in excess of \$30,000. Find his total pay for a week when his sales total \$56,000.

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2. A factory worker is paid 22¢ for each gadget she constructs on the assembly line. Calculate her pay for a week in which she constructed 3250 gadgets.

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3. A real estate agent is paid a commission of 3% on the first \$300,000 of the value of a property and 2% of the remaining value. Find the total commission on the sale of each of the following properties:

(a) a unit sold for \$285,000.

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(b) A house sold for \$560,000

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4. Adam runs a small printing company. He charges \$24.50 to print 100 personal business cards and \$45 to print 50 colour brochures. How much will Adam be paid by a customer who order 350 business cards and 2500 colour brochures?

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**4.1.3 Overtime and other payments**

- Overtime is extra time worked beyond the regular number of hours which will be paid at  $1\frac{1}{2}$  or 2 times.
- A bonus is an extra payment or other benefit given to an employee as a reward.
- Holiday leave loading is a bonus given to all permanent employee when they take their annual leave.

**Exercise 4.1.3**

1. Joe works as a waiter and is normally paid \$550 for a 30-hour week. For how many hours would he have work in a week where his total pay is \$772 if all overtime is paid at the time and a half rate?

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2. Ken's annual salary is \$46,500. At Christmas, Ken takes his annual leave and is paid 4 weeks normal pay plus a holiday leave loading of  $17\frac{1}{2}\%$  on this amount.

(a) Calculate the holiday leave loading.

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(b) Find Ken's total holiday pay.

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3. George normally earns \$636.50 for a 38-hour work. For how many hours would he have work in a week where his total pay is \$804, if all overtime is paid at the double times rate?

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**4.1.4 Wage deductions**

- Gross income is a person's total income before any deductions.
- Net income is the amount of money remained after deductions have been made.
- Typical deductions include income tax, superannuation, union fee and medical insurance.
- **Net income = gross income - deductions**
- **PAYG** stands for **Pay As You Go**.

**Exercise 4.1.4**

1. A IT support officer is paid a gross annual salary of \$51,945. Each week he contributes 5% of his gross pay to a voluntary superannuation fund. His other weekly deductions are \$249.75 in PAYG tax and \$10.35 for union fees.

(a) Calculate the total deductions.

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(b) Find the net weekly income.

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2. A construction worker earns \$19.60 per hour for a 38-hour work plus a weekly site allowance of \$18.90. Each week his employer deducts \$267.30 in tax and 5% of the gross wage is paid into a superannuation fund.

(a) How much money is paid into the superannuation fund each week?

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(b) Calculate the worker's net weekly pay.

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3. Raymond has a regular weekly income of \$468. His employer deducts 35% of his gross weekly income in tax. Find Raymond's gross annual salary.

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**4.1.5 Taxation**

- Under the **Pay As You Go (PAYG)** tax system, employers deduct money each pay period from the gross.
- The financial year begins on 1 July and ends 30 June.
- Employee will be given a payment summary form (**Gross Certificate**).
- **Taxable income = Total gross income - allowable tax deductions**
- Medicare Levy: flat rate 1.5% of taxable income over \$17,309.
- Individual income tax rate 2007-2008:

<i>Taxable income</i>	<i>Tax on this income</i>
\$1 – \$6,000	Nil
\$6,001 – \$30,000	15c for each \$1 over \$6,000
\$30,001 – \$75,000	\$3,600 plus 30c for each \$1 over \$30,000
\$75,001 – \$150,000	\$17,100 plus 40c for each \$1 over \$75,000
\$150,001 and over	\$47,100 plus 45c for each \$1 over \$150,000

**Exercise 4.1.5**

1. Mike earns \$56,315 as an IT engineer. In the last financial year he also earned \$436 in interest on his savings and he had allowable tax deductions total \$3720.

(a) Find his taxable income.

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(b) How much tax should he have to pay?

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(c) What is his average net weekly income?

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2. Emma's gross fortnightly salary is \$1448. At Christmas she receives 4 weeks pay plus a holiday leave loading of  $17\frac{1}{2}\%$ . During the year, she spent \$4200 on dental work and was able to claim 20% of this amount in excess of \$1250 as a tax deduction.

(a) Calculate Emma's gross annual salary including the annual leave loading.

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(b) Find the taxable income.

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(c) How much tax should Emma pay on this taxable income?

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3. Individual Australia taxpayers whose taxable income is greater than 17,309 are required to pay an annual Medicare levy to contribute to the cost of public health care. An additional 1% Medicare levy surcharge is payable by individual taxpayer with taxable income greater than \$50,000 per annum who have not taken out private health insurance with a registered health fund. Calculate the annual medicare levy payable on the taxable income of:

(a) \$12,500

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(b) \$21,000

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(c) \$95,400 does not have private health insurance.

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**4.1.6 Best buys****Exercise 4.1.6**

1. Find the unit cost of each item and hence determine the better buy in each of these.

(a) 30 mL for \$2.10 or 65 mL for \$4.88 \_\_\_\_\_

(b) 7 kg for \$2.61 or 12 kg for \$50.28 \_\_\_\_\_

(c) 85 cm for \$5.19 or 95 cm for \$5.89 \_\_\_\_\_

(d) 75 g for \$10.16 or 125 g for \$17.03 \_\_\_\_\_

2. Gary needs 2 tins of paint to paint his son's bedroom. Paint is advertised for sale at \$9.50 per tin or 'buy 3 tins and get 1 free'. Which purchase option should Gary make? Why?

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3. A 1 kg bag of prawns costs \$7.60 while a  $3\frac{1}{2}$  kg bag costs \$26.75.

(a) Which size represents the better buy?

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(b) At what price should a  $2\frac{1}{2}$  kg bag be sold if it is to represent equal value for money with the best buy?

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4. Potatoes are sold in 2 kg bags for \$2.80 and 5 kg bags for \$7.15. Find the maximum price at which a 3 kg bag should be sold if it is to be the best buy by 10%.

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**4.1.7 Discounts**

A discount is a reduction in price of an item that being sold.

**Exercise 4.1.7**

1. *Mary purchased a lounge chair with a marked price of \$1200 at the mid-year sales, where everything in the store was advertised at 15% off. She was also given a further discount of 3% because she paid cash. How much did she pay for the chair?*

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2. *Linda paid \$420 for a pair of jeans at a 25% off sale. What was the marked price of the jeans before the discount was given?*

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3. *The children's entry fee into a pantomime is set at 60% of the adult's price. Find the total entry price for a family of 2 adults and 3 children if 1 adult and 1 child can enter for \$36.*

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4. *A leather handbag was discount by \$x and then sold for \$y. Find the percentage discount in terms of x and y.*

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5. *The cost of a digital camera was reduced by 30% at the end of financial year sales with a further 5% discount being offered for paying cash. A tourist paid \$530 cash for a camera. What was the original price?*

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