FMP10
Name: _____ Date: _____

Unit 2: Personal Finance

2.1 Wages and Salary

Definitions:

Salary: a fixed amount of money paid to a worker monthly or annually. The income does not depend on the number of hours worked.

hourly wage: the amount of money paid to a worker per hour of work

Overtime: payment for work done in addition to regular hours, typically paid at 1.5x

shift premium: additional payment made for working undesirable shifts (night)

gross pay: total earning from a position → before deductions

gross income: gross pay.

salary: earn a set amount of money paid out on a predetermined schedule.

Examples:

1. Marvin earns $45000 a year. How much is his gross income per pay period?

Type of Salary	Calculation (Payments per year)	Gross Income
1. Monthly	45000 ÷ 12	$3750
2. Semi- monthly (2x month)	45000 ÷ 24	$1875
3. Weekly	45000 ÷ 52	$865.38
4. Bi- weekly (every 2 weeks)	45000 ÷ 26	$1730.77

2. **Hourly wage –**

Ex. Johnny earns $16.50/h plus time and a half for overtime over 40 hours. If he works 42 hours one week, find his gross pay.

Overall hours → 42 = 40 + 2

40 × 16.50 = 660

2 × (16.50 × 1.5) = + 49.50 OT

$709.50

3. Eric makes a wage of $25.40/hour, and receives overtime for any hours over 40 per week. He works the following schedule over the past 5 weeks.

Week 1	Week 2	Week 3	Week 4	Week 5
36 hours	42 hours	46 hours	40 hours	50 hours

36 reg 40 reg 2 OT 40R + 6 OT 40 Reg

a. If he is paid bi-weekly, what is his gross income after week 2? Week 4?

Reg 36h x 25.40 = 914.40
Reg 40h x 25.40 = 1016
OT 2h x (25.40 x 1.5) = 76.20
$2006.60

Reg 80h x 25.40 = 2032
OT 6h x (25.40 x 1.5) = 228.60
$2260.60

b. If week 5 is a set of night shifts with a $1.35 shift premium, calculate Eric's gross pay for week 5.

50h = 40 reg + 10 OT

wage 25.40 + 1.35
= $26.75

Reg 40 x 26.75 = $1070
OT 10 x 26.75 x 1.5 = $401.25
$1471.25

c. In week 6, Eric works two 16-hour days. His contract pays overtime after 8 hours, and double-time after 10 hours. How much does Eric earn in those two days?

16h = 8h reg + 2h OT + 6h double time
= 8 x 25.40 + (2 x 25.40 x 1.5) + 6 x (25.40 x 2)
= 203.20 + 76.20 + 304.80
= $584.20 Day 1
x2
$1168.40

4. Nic works in a restaurant cooking on a grill for $14.75 an hour. His work schedule for this week is shown below. If he earns $24 in tips on Monday, $18 in tips on Tuesday, $8 in tips on Wednesday, $15.50 in tips on Thursday and $36 in tips on Friday, calculate his gross income for the week.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Off	8:30-12:00 Break 12:30-4:30	6:00 – 11:00 Break 1:00 – 4:00	6:00 – 11:00 Break 1:00 – 3:00	8:30 – 12:00 Break 1:00 – 5:30	12:00 – 4:00 Break 4:30 – 8:00	Off

3.5 + 4 5 + 3 5 + 2 3.5 + 4.5 4 + 3.5

# of hours = 7.5 + 8 + 7 + 8 + 7.5

= 38 h

Amount paid = 38 × 14.75

= $560.50

Tips = 24 + 18 + 8 + 15.50 + 36

= $101.50

Gross pay = 560.50 + 101.50

= $662

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2.2 Net Pay

Gross pay: pay before deductions

Deductions must include:

a. **Canada Pension Plan (CPP):** pension for after retirement
→ 4.95% of gross income
→ maxes out at $2593.80

b. **Employment Insurance (EI):** provides some income during periods of unemployment.
→ 1.66% of gross pay → maxes out at $858.22

c. **Income Tax:** federal and provincial taxes.

Deductions can include: benefit deductions (dental, medical), union dues, pension, etc.

Net pay: the amount you receive after deductions have been taken off.

- Also known as take home pay or net income

Vacation pay: an amount of money (usually 4% of pay) owed to all employees to be taken to offset lost wages during a vacation.

2018 Federal income tax brackets*	2018 Federal income tax rates
$46,605 or less	15%
$46,605 to $93,208	20.5%
$93,208 to $144,489	26%
$144,489 to $205,842	29%

Provincial

Taxable Income - 2019 Brackets	Tax Rate
$0 to $40,707	5.06%
$40,707.01 to $81,416	7.70%
$81,416.01 to $93,476	10.50%
$93,476.01 to $113,506	12.29%
$113,506.01 to $153,900	14.70%
Over $153,900	16.80%

Examples:

1. **Alphonso has a gross income of $852.00 per week and works 50 weeks a year. Calculate his gross pay, federal tax, provincial tax, employment insurance (1.66% of gross up to $54,200 per year), CPP (4.95% of gross to a maximum of $2593.80), and net pay. Use the tax tables to find the income tax rates.**

Gross pay = $852 × 50 wk
= $42 600 annual

federal tax : 15% → 0.15 × 42600
= $6390 fed

prov tax : (40707 × 0.0506) + (42600 − 40707) × 0.077
= 2059.77 + 1893(0.077)
= 2059.77 + 145.76
= $2205.53 Prov

EI = 1.66% → 42600 × 0.0166
= $707.16 EI

CPP : 4.95% → 42600 × 0.0495
= 2108.70 CPP

Net Pay

42600 − (6390 + 2205.53 + 707.16 + 2108.70)
= 42600 − 11411.39
= $31188.61

b. If Alphonso ~~also pays 2.5% of his gross~~ to union dues and 3% to a company pension plan, calculate his annual net income.

Union 42600 × 0.025 = $1065
Pension 42600 × 0.03 = $1278

Net 31188.61 − 1065 − 1278
= $28 845.61

2. **Complete the following information in Elaine's paystub below.**

Earnings				Deductions	
Description	**Hours**	**Rate**	**Amount**	**Description**	**Amount**
Regular Hours	40	$18	$720	Income Tax	$204.30
Overtime	6	$27	$162	EI	$15.68
Double Time	2	$36	$72	CPP	$49.11
Vacation Pay			$38.16		
Gross Pay			$992.16	**Total Deductions**	$269.09
				Net Pay	$723.07

paid out per cheque

3. Dina lives and works in Prince George. Her annual salary is $65 000. Each month she has the following tax-exempt deductions taken from her gross income: $60 for professional dues, $55 to a Registered Retirement Savings Plan (RRSP), and $80 for ~~medical insurance~~ union.

Calculate:

a. **Taxable income:**

$65000 - ((12 \times 60) + (12 \times 55))$

$65000 - (720 + 660)$

$65000 - 1380 =$ $63 620

b. **Federal tax:**

$46605 \times 0.15 = 6990.75$

$(63620 - 46605) \times 0.205 = +3488.08$

$(17015) \times 0.205$

$10478.83 Fed

c. **Provincial tax:**

$40707 \times 0.0506 = 2059.77$

$(63620 - 40707) \times 0.077$

$(22913) \times 0.077 = 1764.30$

+

$3824.07 Prov

d. **Employment insurance:**

$63620 \times 0.0166 =$ ~~$1056.09~~ maxed out $858.22

e. **CPP:**

$63620 \times 0.0495 =$ ~~$3149.19~~ maxed out $2593.80

f. **Net pay:**

$63620 - (10478.83 + 3824.07 + 858.22 + 2593.80)$

$63620 - (17754.92)$

$= $45 865.08$

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NAME: _____

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OTHER FORMS OF INCOME NOTES

Commission

Definition: commission – income based on amount of sales, often a percent of the sales price.

Commission is designed to reward employees for making sales. Industries that use commission include:

Car sales, real estate, some home appliance stores, some electronic stores, etc.

Commission can be combined with other incomes, such as hourly wage plus commission

Commission can be graduated., where the percent earned changes based on dollar value sold.

Eg. Davy works as a realtor making a 3.5% commission on the value of homes sold. The average selling price for a house in BC in 2020 is estimated to be approximately $692,200. If Davy manages to sell one house every two months, calculate his gross income for one year.

6 houses in year 3.5% → 0.035

0.035 × 692200 = $24227 × 6

= $145 362

Eg. Davy is offered a salaried position with a salary of $100,000 plus 0.7% commission on the homes sold. How much would this position earn? Which position would you recommend? Justify your answer.

692200 × 0.007 = $4845.40 × 6

$29072.40 commission

+ $100 000

$129 072.40 → commission plus salary

Position 1 b/c makes more $.

Eg. JP has the option of a straight commission of 6.5% on sales, or a stepped commission of 5% on sales up to $300,000 and 10% on sales over $300,000. If JP can expect to maintain sales of $500,000, which pays more?

Option 1

Straight

500000 × 0.065

= $32500

Option 2

Graduated commission

300000 × 0.05 = $15000

200000 × 0.1 = $20000

$35 000

Piecework and Contract Work

Definition: piecework – a job where the pay is per unit of work **completed.**

Eg. Eric delivered realty flyers door-to-door for $0.15 per flyer. He is delivering flyers to 3500 houses over four weeks. If he delivers them at a constant rate, what is his bi-weekly gross pay?

$3500 \times 0.15 = \$525$

$\frac{\$525}{4} = \$131.25$/weekly

$\times 2$

$\boxed{\$262.50}$

Definition: contract – an agreement that lays out the amount of work **to be completed for a** fixed amount **of pay.**

Eg. Sherry works in a tree nursery preparing seedlings for delivery to tree planting companies. She has a contract to deliver 500,000 seedlings before September 1st, and she will be paid $50,000. If she can deliver the seedlings before August 1st, the contract grants her a 10% bonus. She begins work on January 1st to prepare the seedlings. If the contract is paid out semi-monthly what is her gross pay per period if she meets the September deadline? What if she makes the August deadline?

Jan to End of August – 8 months

$\times 2$

16 payments.

$\frac{\$50000}{16} = \boxed{\$3125}$ semi monthly

Jan - End July 7 months

14 payments

$\frac{50000 \times 1.1}{14} = \frac{55000}{14}$

$= \boxed{\$3928.57}$ semi monthly