<u>Section 7.1b – Ways of Earning Part 2</u>

This booklet belongs to: _____ **Block:** _____

<u>Salary</u>

- Salary is an **annual income** – an amount you get paid every year
- Salary can be paid out on a **bi-weekly or semi-monthly** basis.

    o What's the difference?

      ▪ How many **weeks** in a **year**?   52

      ▪ How many **months** in a **year**?   12

    o So, if you get paid **bi-weekly** (every two weeks), how many paychecks do you get?

$$52 \div 2 = \mathbf{26}$$

    o If you get paid **semi-monthly** (twice a month), how many paychecks do you get?

$$12 \cdot 2 = \mathbf{24}$$

So bi-weekly you get 2 more paychecks! Same if you get paid hourly, every two weeks.

- ▪ Your annual salary is the same, but what changes is how much you get each paycheck

Salary	Bi-Weekly	Semi-Monthly
$60 000	$60 000 ÷ 26 $2307.70	$60 000 ÷ 24 $2500.00
$45 000	$45 000 ÷ 26 $1730.77	$45 000 ÷ 24 $1875.00

- ▪ Again, all totals are before deductions

You can figure out your Salary from your paycheck too

- o   Pay **before deductions** is called your **GROSS** pay
- o   Pay **after deductions** is called your **NET** pay

> Salary is based on this one

Example 1:   If you make $2300 GROSS on a paycheck what is your salary if you get paid semi-monthly? What would your paycheck be if you were paid bi-weekly with the same salary?

Solution 1:

$$\$2300 \cdot 24 = \$55\,200 \; annually$$

> Annual Salary

$$55\,200 \div 26 = \$2123.08 \; bi-weekly$$

> What Bi-Weekly GROSS pay would be

When calculating your Salary from your paycheck you need to know whether you are paid bi-weekly or semi-monthly, then you can determine your GROSS pay.

Bi-Weekly vs. Semi-Monthly

Pro's	Con's
o Paycheck is always the same o Not based on hours worked	o Paycheck is always the same o Not based on hours worked

Why would these be the same?

- You could work more than 40 hours and only get paid for 40
- You could work less than 40 hours and get paid for 40
- You know exactly how much you will get paid each pay period
- There is no incentive to put in more time to increase wage

Commission

- Commission is similar to tips, you get **a percentage on the sale** that is made
    - o It can be included **on top** of a **salary or hourly** wage
    - o Or your job is **based purely on commission**
- Having a salary or hourly wage and commission provides you with the guarantee of money coming in, but generally the commission percentage is quite low
- When you work strictly commission it is risky, you are not guaranteed money unless you make a sale, but generally the commission percentage is higher
- Calculating commission is **all about percentage**, remember:

    - ▪ $2\% = 0.02$
    - ▪ $5\% = 0.05$
    - ▪ $12.5\% = 0.125$

Example 2:   Genevieve is a car salesperson, she does not make a salary or hourly wage, but makes 2% commission on her sales. How much money does she make on a car that is $53 000?

Solution 2:

$$53\,000 \cdot 2\% \rightarrow \$53\,000 \cdot 0.02 = \$1060$$

She makes $**1060 on that sale**

Example 3:   Grant sells Real Estate, he makes 3.5% on the first $100 000 and 1% on the rest of the sale price, how much money does he make if he sells a house for $850 000?

Solution 3:

$$\$100\,000 \cdot 3.5\% \rightarrow \$100\,000 \cdot 0.035 = \$3500$$

$$\$750\,000 \cdot 1\% \rightarrow \$750\,000 \cdot 0.01 = \$7500$$

Then **add** those together

$$\$3500 + \$7500 = \$11\,000$$

Grant makes $**11 000** on the sale!!!

Keep in mind, he has to pay a number of costs for operating his business and splits this commission with the buying realtor. Not all for him.

- Now if you have an hourly wage and you make a commission, just calculate the two wages separately and add them together

Example 4: Shi works at Below the Belt, she makes $12.45/hr$ and makes 0.5% commission on her sales. Yesterday she worked for $6\ hours$ and sold \$4500 worth of merchandise, how much did she make that day?

Solution 4:

$$\frac{\$12.45}{hr} \cdot 6hr = \$\mathbf{74.70}$$

$$\$4500 \cdot 0.5\% \rightarrow \$4500 \cdot 0.005 = \$\mathbf{22.50}$$

Then add them up

$$\$74.70 + \$22.50 = \$\mathbf{97.20}$$

Shi makes $\$\mathbf{97.20}$

- **Can you work it out backwards?**

If Stephanie makes \$18 500 in commission on a sale, and her commission rate is 2.5%, what was the sale price?	If the sale price is \$540 000 and the commission was \$27 000 what is the commission percentage?
If: $Sale\ Price(2.5\%) = \$18\ 500$	If: $\$540\ 000(Commission) = \$27\ 000$
Then: $SP = \frac{\$18\ 500}{2.5\%} \rightarrow \frac{\$18500}{0.025} = \$740\ 000$	Then: $Commission = \frac{\$27\ 000}{\$540\ 000}$
The original $sale\ price$ was: \$740 000	$Commission = 0.05 = 5\%$

- Working backwards means we have to use our Algebra Skills once again!
- You'll again that our units cancel out perfectly.

Up next we will look at the different deductions that come off your GROSS pay.

Section 7.1b – Practice Problems

1. If your annual salary is $125 000 and you get paid bi-weekly, what is your Gross Pay? What is it if you get paid semi-monthly?

2. If you get a Gross Pay Paycheck twice a month of $3200, what is your annual salary?

3. Complete the following chart.

Annual Salary	Bi-Weekly Pay	Semi-Monthly Pay
	$2400	
$23 800		
		$2850
$83 500		
	$1958	
		$4200

4. Adam sells cars and makes 2.5% commission. Last week he sold two cars, one was $63 000 and the other was $28 000. How much did he make?

5. Jaewon sells clothes, he makes 3.5% on his first $300 and makes 4% on anything more. He also makes $12.50/$hr$. How much does he make in an 8-hour shift with sales of $1200?

6. Come up with your own question involving salary or commission and then solve it. Make it as challenging as possible.

7. Harpinder works as a real estate agent, he makes 3% on the first $150 000 and 1.5% on the rest. He had a very successful month and sold three homes, they were
$550 000, $890 000, and $1.2 million respectively. How much did he make that month?

8. Complete the following table, show your work below.

Selling Price	Commission Rate	Commission Amount
	4.75%	$29 925
$6200		$387.50
	2.3%	$125.50

Extra Work Space