Section 1.2 – Ways of Earning: Salary and Commission

Salary (Hours do not Matter)

- 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?

$$52 \div 2 = 26$$

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

$$12 \cdot 2 = 24$$

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	\$60 000 ÷ 24
	\$2307.70	\$2500.00
\$45 000	\$45 000 ÷ 26	\$45 000 ÷ 24
	\$1730.77	\$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
- Pay after deductions is called your NET pay

Salary is based on this one

Example:

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:

$$$2300 \cdot 24 = $55\ 200\ annually$$
 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 biweekly or semi-monthly, then you can determine your GROSS pay.

Bi-Weekly vs. Semi-Monthly

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

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:

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

She makes \$1060 on that sale

Example:

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:

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

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

Then add those together

$$$3500 + $7500 = $11000$$

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

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

Example: 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:

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

$$$4500 \cdot 0.5\% \rightarrow $4500 \cdot 0.005 = $22.50$$

Then add them up

$$$74.70 + $22.50 = $97.20$$

Shi makes \$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: $Sale\ Price(2.5\%) = 18500

Then: $SP = \frac{\$18500}{25\%} \rightarrow \frac{\$18500}{0.025} = \$740\ 000$

The original sale price was: \$740 000

If the sale price is \$540 000 and the commission was \$27 000 what is the commission percentage?

If: $$540\ 000(Commission) = $27\ 000$

Then: $Commission = \frac{\$27\ 000}{\$540\ 000}$

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 1.2 – 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.

	1	T
Annual Salary	Bi-Weekly Pay	Semi-Monthly Pay
	\$2400	
\$23 800		
		\$2850
		·
\$83 500		
ψ03 300		
	\$1958	
	ΨΙ/30	
		¢4200
		\$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

Section 1.2 – Answer Key

- 1. *BW*: \$4807.69 *SM*: \$5208.33
- 2. \$76 800
- Left to Right Top to Bottom
 - i. \$62 400
 - ii. \$2600
 - iii. \$915.38
 - iv. \$991.67
 - v. \$68 400
 - vi. \$2630.77
 - vii. \$3211.54
 - viii. \$3479.17
 - ix. \$50 908
 - x. \$2121.17
 - xi. \$100 800
 - xii. \$3876.92
- 4. \$2275
- 5. \$146.50
- 6. Answers will Vary
- 7. \$46 350
- 8. Left to Right Top

to Bottom

- i. \$630 000
- ii. 6.25%
- iii. \$5456.52