

**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?

Bi-weekly: 26 times

$$\frac{125\,000}{26} = \boxed{\$4807.69}$$

Semi-Monthly: 24 times

$$\frac{125\,000}{24} = \boxed{\$5208}$$

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

$$3200 \cdot 2 = 6400$$

$$6400 \cdot 12 = \boxed{\$76\,800}$$

3. Complete the following chart.

| Annual Salary | Bi-Weekly Pay | Semi-Monthly Pay |
|---------------|---------------|------------------|
| \$62 400      | \$2400        | \$2600           |
| \$23 800      | \$915.38      | \$991.67         |
| \$68 400      | \$2630.77     | \$2850           |
| \$83 500      | \$3211.54     | \$3479.17        |
| \$50 908      | \$1958        | \$2121.17        |
| \$100 800     | \$3876.92     | \$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?

$$\begin{array}{r} 63000 \\ + 28000 \\ \hline 91000 \end{array}$$

$$91000 \cdot 0.025$$

$$\boxed{\$ 2275}$$

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?

$$\begin{aligned} 300 \cdot 0.035 &= \$ 10.50 \\ 900 \cdot 0.04 &= \$ 36.00 \end{aligned}$$

$$12.50 \cdot 8 = 100$$

$$\text{Total: } 100 + 10.50 + 36$$

$$\boxed{\$ 146.50}$$

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?

$$\begin{array}{ccccccc}
 \downarrow & \downarrow & \downarrow & & & & \\
 150\ 000 & 150\ 000 & 150\ 000 & \rightarrow \text{at } 3\% & 450\ 000 \cdot 0.03 & = & 13\ 500 \\
 400\ 000 & 740\ 000 & 1\ 050\ 000 & \rightarrow \text{at } 1.5\% & 2\ 190\ 000 \cdot 0.015 & = & 32\ 850
 \end{array}$$

\$ 46 350

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

| Selling Price | Commission Rate | Commission Amount |
|---------------|-----------------|-------------------|
| \$ 63 000     | 4.75%           | \$29 925          |
| \$6200        | 6.25%           | \$387.50          |
| \$ 5456.52    | 2.3%            | \$125.50          |

$$x(0.0475) = 29\ 925$$

$$x = \frac{29\ 925}{0.0475} = 630\ 000$$

$$x(0.023) = 125.50$$

$$x = \frac{125.50}{0.023}$$

x = 5456.52

$$6200 \cdot x = 387.50$$

$$x = \frac{387.50}{6200}$$

$$x = 0.0625$$

$$= 6.25\%$$