

Review sheet
and #7-14 (p300)

Chapter 7.2A review

1. Lang is an accountant in Vancouver with an annual salary of \$68 200. He gets a 2.4% bonus at the end of the year if his firm does well. What is his weekly gross salary including bonus?

$$\begin{aligned} \$68\,200 \times 0.024 &= 1636.8 \\ \$68\,200 + 1636.8 &= \$69\,836.8 \div 52 \\ &= \boxed{\$1343.02} \end{aligned}$$

2. Star works part time as a waitress. She earns \$10/h and makes \$50 in tips each week. If she works 20 h each week, how many weeks will it take her to earn \$3000

$$\begin{aligned} \$10/h \times 20h &= \$200 \\ \$200 + \$50 &= \$250/wk \\ \$3000 \div \$250 &= \boxed{12 \text{ weeks}} \end{aligned}$$

3. Juanita earns \$1250 monthly selling large appliances. She also earns 2% commission on her first \$20 000 in sales and 3.5% on sales over \$20 000 each month. Her total sales for March were \$34 320. What was Juanita's gross income for the month?

$$\begin{aligned} \$20\,000 \times 0.02 &= \$400 \\ \$ (34\,320 - \$20\,000) \times 0.035 &= \$501.20 \end{aligned}$$

$$\text{Gross: } 1250 + 400 + 501.20 = \boxed{\$2151.20}$$

4. Jody installs and repairs telephones. She earns \$21.20/h plus time and a half for any hours she works over 40 hours a week. Last week she worked 49 hours. Aidan earns an annual salary of \$43 000 as the director of sales at a computer company. Who had the higher gross income last week?

Jody:

$$\begin{aligned} \$21.20 \times 40h &= \$848 \\ (21.20 \times 1.5) \times 9h &= \$286.2 \\ \$848 + \$286.2 &= \boxed{\$1134.2} \end{aligned}$$

Aidan

$$\begin{aligned} \$43\,000 \div 52 &= \boxed{\$826.92} \end{aligned}$$

Jody had the higher income

5. Mindy is an electrician and Bridgit assembles computers. Mindy earns \$24.50/h and a shift premium of \$1.50/h for hours worked after 8 p.m. Last week she worked 45 h, including 5 h Tuesday night. Bridgit earns \$6.25 for each computer. How many computers must Bridgit assemble in a week to match Mindy's gross income for the week?

Mindy

$$\begin{aligned} \$24.50 \times 40 &= \$980 \\ (24.50 + 1.50) \times 5 &= \$130 \\ \$980 + \$130 &= \$1110 \end{aligned}$$

Bridgit

$$1110 \div 6.25 = 177.6$$

Bridgit must assemble 178 computers

6. Liza is a bank teller earning an annual salary of \$35 000. Sasha works as a legal secretary and is paid \$15.40/h and double time for hours over 35 each week. How many hours of overtime must Sasha work each week to earn as much as Liza?

Sasha:

$$\begin{aligned} \$15.40/h \times 35h &= \$539 \\ \$539 \times 52 &= \$28\,028 \end{aligned}$$

$$\$35\,000 - \$28\,028 = \$6972$$

$$\$6972 \div 52 = 134.08$$

$$\$15.40/h \times 2 = \$30.80$$

$$134.08 \div \$30.80 = 4.35$$

$$60\text{min} \times 0.35 = 21\text{min}$$

she must work 4h and 21min of overtime a week to earn as much as liza.