

3 600 000

1.3 Calculating Gross Income

Glossary Words:

Vacation Pay – Money paid by an employer to employees instead of paying employees during their holidays.

Bi-Weekly – Every other week. Someone who is paid bi-weekly gets paid 26 times a year.

Semi-Monthly – Twice a month. Someone who is paid semi-monthly gets paid 24 times a year.

1. Junior works at Home Depot in the paint department. He earns \$12.60 per hour and usually works 38 hours per week.

a) Calculate his weekly earnings.

$$\text{Earnings} = 38 \times 12.60 = \$478.80$$

b) Determine his total earnings for a month in which he receives 4 pay cheques.

$$\text{Monthly Earnings} = 4 \times 478.80 = \$1915.20$$

c) Calculate her total earnings for a month in which he receives 5 pay cheques.

$$\text{Monthly Earnings} = 5 \times 478.80 = \$2394.00$$

d) Determine his total earnings for a year if he receives 4 weeks of unpaid holidays per year.

$$52 - 4 = 48 \quad \text{Yearly} = 478.80 \times 48 = 22982.40$$

e) Calculate his expected vacation pay (he earns 5% of his yearly income) if he worked 48 weeks last year. Assume he did not miss 1 day's work throughout the year.

$$\begin{aligned} \text{Vacation Pay} &= 5\% \text{ of yearly income} \\ &= 0.05 \times 22982.40 \\ &= 1149.12 \end{aligned}$$

$$\begin{aligned} \text{Total Yearly} &= 22982.40 + 1149.12 \\ &= 24131.52 \end{aligned}$$

Amira is paid bi-weekly Week = $37.5 \times 26.50 = 993.75$

2. Junior's wife, Amira, works for Ottawa Hydro. She earns \$26.50 per hour as a hydro technician. She usually works 37.5 hours per week.

a) How many hours does Amira work in a 2-week period?

$$\begin{array}{l} 37.5 \\ \hline 37.5 \end{array} \text{ Hours} = 37.5 \times 2 = 75 \text{ hours}$$

b) Calculate her total earnings for 1 pay period. ← 2 weeks long

$$\text{Earnings} = 75 \times 26.50 = 1987.50$$

c) Determine her total earnings for a 2-pay month.

$$\text{Total} = 2 \times 1987.50 = 3975.00$$

d) Calculate her total earnings for a 3-pay month.

$$\text{Total} = 3 \times 1987.50 = 5962.50$$

e) Calculate her total earnings for a year if she works 49 weeks per year and earns 9% vacation pay. Assume she did not miss any other days of work.

$$\begin{aligned} \text{Yearly} &= 49 \times 993.75 \\ &= 48693.75 \\ \text{Vacation Pay} &= 9\% \times 48693.75 \\ &= 4382.44 \end{aligned}$$

3. Calculate Junior and Amira's combined annual family income.

$$\text{Total} = 48693.75 + 4382.44 = 53076.19$$

Their combined income averages \$ _____ per month or approximately \$ _____ per week.

$$\begin{aligned} &= 77207.71 \\ \text{Monthly} &= 77207.71 \div 12 \\ &= 6433.97 \end{aligned}$$

$$\begin{aligned} \text{Weekly} &= \frac{77207.71}{52} \\ &= 1484.76 \end{aligned}$$

He is paid 24 times a year.

4. Mugtaba is a manager in the food services department at the hospital. He earns an annual salary of \$67 000 and he is paid semi-monthly.

a) Determine his earnings per pay.

$$\begin{aligned} \text{Earnings per pay} &= \frac{67000}{24} \\ &= \$2791.66 \end{aligned}$$

b) Calculate his total earnings per month.

$$\begin{aligned} \text{Earnings per month} &= 2791.66 \times 2 \\ &= \$5583.33 \end{aligned}$$

c) What are his total earnings per year if he receives 4 weeks paid holidays per year?

\$67 000

d) Explain why Mugtaba has his monthly car payment and monthly car insurance payment deducted from his account on the 16th of every month?

He is paid on the 16th
so he has \$ to
pay his
bills.