

Foundations of Math & Pre-Calculus 10
Chapter 8 ~ Financial Literacy

Lesson F1 ~ Calculate Gross Pay for Various Types of Income

Ways of Earning Income

hourly wage	a fixed payment for each hour of work Examples: store clerk, fast-food restaurant worker
wage and tips	an hourly wage plus varying amounts in tips for services provided Examples: taxi driver, hotel worker
salary	a regular fixed payment for work, usually expressed as an amount per year but paid regularly (e.g., every two weeks or monthly) Examples: firefighter, teacher
commission	a payment based on a percentage of the worker's sales Examples: real estate agent, car salesperson
royalty	a payment for a piece of work that is marketed and sold. The amount is based on a percentage of sales Examples: author, musician
piecework	a payment based on the number of items created or completed Examples: sewing machine operator, cable TV installer
contract	a payment for a fixed period of time and/or a fixed amount of money Examples: electrical contractor, editor

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Remember:

- There are 365 days or 52 weeks per year.
- Annual means per year.
- A month has between 4 and 5 weeks...so you will need to find annual income before you can find monthly income.
- Semi-monthly means twice per month and 24 times per year (2×12).
- Bi-weekly means every two weeks and 26 times per year ($52 \div 2$).
- There are 60 minutes in an hour...so 42 minutes is $\frac{42}{60} = 0.7$ hours.

Wages and Salaries

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- 1) A person earns \$12.40 per hour and works 32 hours a week. Determine the:
 - a. gross weekly earnings.
 - b. gross annual earnings
 - c. gross monthly earnings
- 2) A person earns \$17.95 per hour and works 37.5 hours a week. Determine the:
 - a. gross weekly earnings.
 - b. gross annual earnings
 - c. gross monthly earnings
- 3) A person works full time in a salaried position and gets paid \$1240 semi monthly. Determine the annual income.
- 4) A person works full time in a salaried position and earns \$1080 bi weekly. Determine the annual income.
- 5) A person works full time in a salaried position and earns \$2850 bi-weekly. Determine the average monthly income.
- 6) A person earns \$1300 a week and works 20 hours a week. Determine his hourly pay.
- 7) A person earns \$13852.80 a year and works 18 hours a week. Determine his hourly pay.
- 8) A person is paid time and a half overtime pay when she works more than 8 hours in a day. Her regular wage is \$18.00. Determine her overtime hourly wage and the amount she is paid if she works 10 hours in one day.

- 9) A person is paid time and a half overtime when he works more than 8 hours in a day. His regular wages are \$17.30. Determine his overtime hourly wage and the amount he earns if he works 11.75 hours in one day.
- 10) A person is paid time and a half overtime when he works more than 8 hours in a day. His regular wages are \$14.95. He works 10.25 hours per day, 5 days per week. Determine his daily, weekly, annual, and monthly incomes.
- 11) A person earns \$17.90 per hour. She does such a great job, her boss gives her a 3.5% raise. Determine her new hourly wage.
- 12) A person has an annual salary of \$68400. He does such a poor job, his boss gives him a 2.7% pay cut. Determine his new annual wage.
- 13) A person has an hourly wage, plus time and a half for all hours over 8 in a day. One day she works 11 hours and earns \$178.13. Determine her regular hourly wage
- 14) A person has 2 after school jobs with 2 different hourly wages. One week he works 12 hours at job A and 7 hours at job B and earns \$271.40. The next week he works 8 hours at job A and 15 hours at job B and earns \$344.20. Determine the 2 hourly wages.

Pay Sheet Practice

1. Jim earns \$10.50 per hour, plus time and a half for all hours over 40 in one week. Determine his gross pay for the week.

M	T	W	T	F	S	S	Reg Hours	OT Hours	Gross Pay
7	5	0	0	8	4	5			

2. Betty earns \$12.75 per hour, plus time and a half for all hours over 40 in one week. Determine her gross pay for the week.

M	T	W	T	F	S	S	Reg Hours	OT Hours	Gross Pay
8	8	8	10	9	0	4			

3. Rebecca earns \$9.15 per hour, plus time and a half for all hours over 40 in one week. Determine her gross pay for the week.

M	T	W	T	F	S	S	Reg Hours	OT Hours	Gross Pay
9	10h15min	12	11h15min	13	5h30min	6			

4. Karen earns \$32.58 per hour, plus time and a half for all hours over 40 in one week. Determine her gross pay for the week.

M	T	W	T	F	S	S	Reg Hours	OT Hours	Gross Pay
8h 30min	8h 15min	7h 45min	7h 45min	0	6h 45min	7h 15min			

5. Wanda earns \$14.25 per hour, plus time and a half for all hours over 40 in one week. Determine her gross pay for the week.

M	T	W	T	F	S	S	Reg Hours	OT Hours	Gross Pay
5h 20min	7h 10min	8h 5min	6 40m	9h 35min	0	5h 50min			

6. Wendy earns \$17.85 per hour, plus time and a half for all hours over 40 in one week. Determine her gross pay for the week.

Day	M	T	W	T	F	S	S
Start	7:53am	8:04am	10:37am		9:43am	10:08am	11:56am
Finish	4:12pm	3:51pm	7:19pm		10:25pm	9:16pm	4:42pm
Hours							

Alternative Ways to Earn Money

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- 1) A sales person earns a 5% commission on his sales. One week he has \$2800 in sales. Determine his gross income.
- 2) A sales person earns a 3.8% commission on her sales. One week she has \$18700 in sales. Determine her gross annual and monthly income, assuming she sells the amount each month.
- 3) A sales person earns a 4.7% commission on his sales, plus a base salary of \$200 per week. One week he has \$23000 in sales. Determine his gross income for the week.
- 4) A sales person earns a 2.04% commission on his sales, plus a base salary of \$8 per hour. One week he has \$32700 in sales and works 26 hours. Determine his gross income for the week.
- 5) A sales person earns a 0.47% commission on his sales, plus a base salary of \$11 per hour, plus time and a half for hours over 40 in a week. One week he has \$89436 in sales and works 48 hours. Determine his gross income for the week.
- 6) A sales person earns a commission on her sales, plus \$12.80 per hour, plus time and a half for hours over 40 in a week. One week she works 43 hours and has \$21 872 in sales and earns \$853.94. Determine her commission percentage.

- 7) A person repairs electronic gadgets. He gets \$25 per gadget he fixes, plus \$8.75 per hour. One day he works 7h42min and fixes 9 gadgets. Determine his gross pay for the day.
- 8) A salesperson gets a 2.08% commission, plus an hourly wage of \$12.65 per hour, plus time and a half for hours over 40 in a week. One week he works 47 hours and 37 minutes and has \$46 984 in sales. Determine his weekly and monthly incomes, assuming he works and sells the same every week.
- 9) A person is offered 2 jobs. Job A pays \$14.75 per hour and he would work 35 hours per week. Job B pays a 2.8% commission on sales. How much would he need to sell at job B to earn more in a week?
- 10) A salesperson earns a 2% commission on her sales. She wants to make \$1200 per week. How much will she need to sell?
- 11) A salesperson earns a 1.35% commission on his sales. He wants to make \$80000 per year. How much will she need to sell every month?
- 12) A salesperson earns a 0.25% commission on his sales. He wants to make \$6500 per month. How much will he need to sell every week?

Lesson F2 ~ Calculate Income Tax, Other Deductions, and Net Pay

Standard Government Deductions

Income Tax	a portion of an employee's earnings that federal and provincial governments use to provide services
Employment Insurance (EI)	a fund that provides a source of income to people who lose their jobs (through no fault of their own) while they look for a new job
Canada Pension Plan (CPP)	a government fund that provides a monthly pension to workers when they retire

Optional Deductions

Company Pension Plan	a fund that provides a company pension during retirement, in addition to CPP
Company Health Plan	a plan for medical expenses not covered by other government health care plans
Life Insurance	a plan that pays a sum of money to a family member or designated beneficiary in the case of an employee's death
Disability Insurance	a plan that provides a source of income when an employee is injured and unable to work
Union Dues	a deduction made when an employee belongs to a union. Unions negotiate wages, benefits, and working conditions with employers.
Payroll Savings	an option for employees to make a regular contribution to a savings plan, such as Canada Savings Bonds
Charitable Donations	an option for employees to make a regular donation to a charity

Payroll Deductions and Net Pay

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- 1) A person has a weekly income of \$970. Determine their CPP contribution.
- 2) A person has a weekly income of \$1187.46. Determine their EI contribution.
- 3) A person has a weekly income of \$1473.98. They are claim code 1. Determine their Federal tax deduction.
- 4) A person has a weekly income of \$1514.03. They are claim code 6. Determine their Provincial tax deduction.
- 5) A person has a weekly gross income of \$972.28. They are claim code 3. Determine their :
 - a. CPP contributions
 - b. EI contributions
 - c. Federal tax deduction
 - d. Provincial tax deduction
 - e. total deductions
 - f. Net Income
- 6) A person has a weekly gross income of \$923.89. They are claim code 0. Determine their :
 - a. CPP contributions
 - b. EI contributions
 - c. Federal tax deduction
 - d. Provincial tax deduction
 - e. total deductions
 - f. Net Income