**Student Friendly:** 

"How is gross pay calculated?"

# Curriculum Outcome N2 Demonstrate an understanding of income, including: wages, salary, contracts, commission, piecework, and calculating gross pay and net pay. N3 Demonstrate an understanding of compound interest. N4 Demonstrate an understanding of financial institution services used to access and manage finances. N5 Demonstrate an understanding of credit options, including: credit cards, and loans.

Gregor works as a glazier, a person who cuts and fits glass, at a window manufacturing company in Miramichi, NB. He earns \$19.99/h for 37.5 hours a week and time and a half for any hours over that. Gregor examines the schedule for the upcoming week, shown here.

Employee Name	Day	Start time	End time
Gregor	Sunday		
	Monday	8:00 am	4:00 pm
	Tuesday	8:15 am	4:00 pm
	Wednesday	8:00 am	3:30 pm
	Thursday	8:00 am	4:00 pm
	Friday	9:00 am	4:15 pm
	Saturday	8:30 am	6:30 pm

= 8 hours = 8 hours = 7h 45min = 7.75 hours = 7h 30min = 7.5 hours = 8 hours = 8 hours = 7h 15min = 7.25 hours = 10 hours = 10 hours 48.5 hours

- a) Describe your strategy for determining the number of hours Gregor will work each day and express these amounts as decimals
  - decimals.
  - b) How many hours of overtime will he work?
    - $48.5 \text{ hours} 37.5 \text{ hours} = 11 \text{ hours of overtime}^{.50}$



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#### **BUILD YOUR SKILLS**

- Rachel works 40 hours a week as a journeyman printer. She earns \$23.68 an hour.
  - a) What are her gross weekly earnings?
  - b) If she works 49 weeks a year and receives 3 weeks of paid holidays, what are her gross annual earnings?
- 2. What is the difference between biweekly and semi-monthly pay periods? What advantage does one method have over the other?
- 3. Luc earns \$534.12 a month and works 12 hours a week. Explain how you would calculate his hourly pay. (Hint: \$11.13 an hour is not correct.)
- 4. You are cutting lawns for your summer job. One customer gives you the option of being paid \$11.00 an hour or a flat fee of \$35.00 each time you cut the lawn. What factors would you take into account in deciding which option to choose?
- 5. If Arielle is paid \$10.20 an hour as a swimming lifeguard and she works 12 hours a week, what is her average monthly wage? If she asked for a raise to \$12.50 an hour, would her monthly earnings increase by more or less than \$100.00?

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1a) \$947.20

b) \$ 49 254.40

2) Biweekly 26 pays, so paid more often compared to semi monthly payments which would be larger pay.

3) \$10.28

5a) \$530.40

4) about 4 lawns

b) \$119.50

- 6. Brandon is paid 150% of his regular hourly rate for overtime hours. He is paid \$45.00 an hour for overtime hours. What is his regular hourly rate?
- 7. Sholeh works as a welder at a jewellery workshop. She receives annual cost-of-living raises. Her salary before receiving a raise is \$29 535.00.
  - a) One year, Sholeh receives a cost-of-living raise of 3.4%. What is her new salary?
  - b) If Sholeh receives cost-of-living raises of 2.8% the following year and 3.2% the year after that, what will her salary be after the three costof-living raises?
- 8. Examine the following table, which records the hours worked by an employee who uses a punch-card system to log her hours.
  - a) How many hours and minutes did this employee work each day?
  - b) What are these amounts expressed as decimals?
  - c) If the employee's rate of pay is \$9.90/h, how much did she earn for the week?
  - d) Why is it preferable to start and end at the specified times in a job that logs exact log-in times?

#### HINT

Employers don't usually pay for every minute. Round off the hours to the nearest quarter hour, then calculate the pay.

**Time Card** Employee Number: 67891 Approval: Employee Name: Navreet Kooner N. Kooner For Week Ending: Nov. 19 Date Morning Afternoon Overtime Hours Total Hours OUT OUT OUT REG OT IN IN ΙN Nov 15 9:03 12:05 3 h 2m Nov 16 4:02 9:06 4 -Nov 17 8:58 12:00 Nov 18 4:30 10:01 Nov 19 8:32 12:00

Examine the following pay statements.

20 hr

- a) Franco worked 5 days, from 6:00 pm to 1:00 am, with a 30-minute unpaid dinner break each day. He earns \$9.95/h. Fix the mistakes on his pay statement.
- 6) \$30 7a) \$30 539.19

8c) \$198/week

- b) \$31 394.28
- c) \$32 398.90

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Employee Name: Franco					
Company:		Pay Begin Date:	21/05/2011		
Silver Screen		Pay End Date:	15/05/2110		
General					
Employee ID:	999999	Job Title:	Theatre attendant		
Address:		Pay Rate: Annual:	\$9.95/h		
Hours and Earnings					
Description	Rate	Hours	Gross Earnings		
Regular	\$9.95/h	30.0	\$298.50		

b) In one week, Christine worked three 4-hour shifts, one 5-hour shift, and one 6.5-hour shift. She is paid \$10.05/h. Fix the mistakes on her pay statement.

Employee Name: Christine					
Company:		Pay Begin Date:	14/07/2011		
Whole Earth Gardens		Pay End Date:	20/07/2011		
General					
Employee ID:	999999	Job Title:	Cashier		
Address:		Pay Rate: Annual:	\$10.50/h		
Hours and Earnings					
Description	Rate	Hours	Gross Earnings		
Regular	\$10.05/h	23.5	\$222.08		

c) If you noticed an error on your pay statement, what would you do?

#### Extend your thinking

- 10. You are comparing two options for summer jobs. One job is as a summer camp counsellor for 10-year-olds and takes place at your local community centre. The pay is \$240.00 a week for a period of 6 weeks. The other job is working as a house painter. It would require you to commute to different locations and pays a rate of \$11.50/h. You can work 8.5 weeks at this job.
  - a) What factors would you consider in choosing between the two jobs?
  - b) What additional information would you need to project your earnings from each job?
  - c) Which job might involve working some overtime? Explain why.
  - d) Under what circumstances would working overtime appeal to you? Why might you choose not to work overtime?

MathWorks 10

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