



MATH ON THE JOB

The banks of the Kennebecasis River near Bloomfield, New Brunswick, border Evelyn Cassidy's dairy farm and her Farm Stay Bed and Breakfast. Evelyn is the self-employed owner and operator of these businesses.

Evelyn makes a point of taking courses that contribute to her skills as a host and businessperson. She has studied agriculture, French, computer programs, cooking, and risk management and outdoor adventure. She has attended New Brunswick Community College, the University of New Brunswick, and is a graduate of Hampton High School.

"Being self-employed, I have to do every job involved in my work. I use math all the time," Evelyn says. For example, she must calculate costs, prices, profit, guest bills, and staff wages.

Suppose Evelyn hires two part-time employees, one to help her guide tours and one to help her with cooking and cleaning for the bed and breakfast. Each person works 5 days a week. The guide makes \$10.50 an hour and works 15 hours per week. The cook/cleaner works for 25 hours in one week and makes a total of \$268.75 before taxes. How much will Evelyn pay the tour guide for one week's work? What hourly wage will Evelyn pay the cook/cleaner?



Evelyn in the kitchen of her Farm Stay Bed and Breakfast. Evelyn also runs tours on her dairy farm where participants have the chance to sample dairy products, learn how to milk a cow, and feed a calf.

SOLUTION

To calculate the tour guide's weekly earnings, multiply the number of hours worked by the rate of pay for the job.

$$15 \text{ h} \times \$10.50/\text{h} = \$157.50$$

The tour guide will earn \$157.50 in one week, before taxes.

To calculate the cook/cleaner's hourly wage, divide the weekly amount earned by the number of hours worked.

$$\$268.75 \div 25 = \$10.75$$

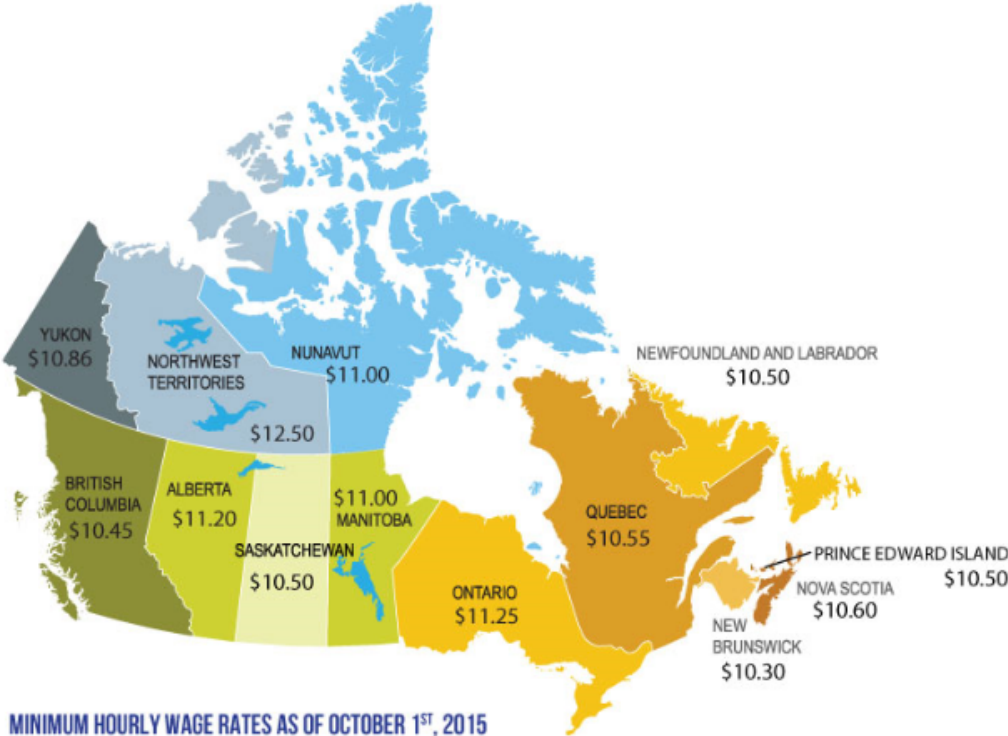
The cook/cleaner earns an hourly wage of \$10.75.

Copy down the following notes/definitions...

Minimum Wage

The minimum amount a worker must be paid an hour.

This rate varies, depending on which province or territory you live in.



Gross Pay

the total amount
of money earned
(pay before deductions)

Overtime

work beyond a normal
work week (40 hours)



Rates...

- time and a half: your regular rate plus half of your (Rate x 1.5)
- double time: double your hourly rate (Rate x 2)
- triple time: triple hourly rate (Rate x 3)