

5.4 Sales Tax and Discount – Notes

In Newfoundland we pay 15% HST (harmonized sales tax) on all goods and services bought in this province.

Let's take an everyday example to ensure that you know how to apply sales tax to items you are buying. Further we will explore discounts which will be helpful in determining the best value for your money.

Example (1): Ms. Cross is on your case because it's February and you still don't have a scientific calculator. Your parent gives you \$25 and tells you to go to staples and buy a calculator. The price tag on the calculator is \$20.73. Do you have enough money?



\$20.73

Gr. 8

$$100\% + 15\% = 115\%$$

total cost including taxes = 115% of \$20.73

$$= 1.15 \times 20.73$$

$$= \$23.8395$$

$$= \$23.84$$

Yes you can buy the calculator with \$25.

Gr. 7

$$\begin{aligned} \text{tax} &= 15\% \text{ of } 20.73 \\ &= 0.15 \times 20.73 \\ &= 3.1095 \\ &= \$3.11 \end{aligned}$$

$$\begin{aligned} \text{total cost} &= 20.73 + 3.11 \\ &= \$23.84 \end{aligned}$$

Example (2): You're in luck! Walmart has the same calculator on sale for 15% off.
What is the discount amount before tax?

Gr. 8

$$100\% - 15\% = 85\%$$

$$\begin{aligned}\text{Discount Amount} &= 85\% \text{ of } \$20.73 \\ &= 0.85 \times 20.73 \\ &= 17.6205 \\ &= \$17.62 \text{ \& price tag.}\end{aligned}$$

$$100\% + 15\% = 115\%$$

What will be the total price of the calculator?

Gr. 8:

$$\begin{aligned}\text{total price} \\ \text{including taxes} &= 115\% \text{ of Discount Amount.} \\ &= 1.15 \times 17.62 \\ &= 20.263 \\ &= \$20.26\end{aligned}$$