

Name: Kay
Date: _____

Mr. Johnson
Math 8

Lesson 5.4 – Sales Tax and Discount

Notes:

Currently in Canada the goods and service tax (GST) is 5% and the provincial sales tax (PST) of BC is 7%.

What is GST and PST used to pay for? List three different reasons you can think of.

- social services
 - roads/highways
 - health care
- etc.

The PST varies province by province so something bought in BC may be cheaper or more expensive in different provinces.

A discount is the amount by which a price has been reduced. For instance if you saw a 25% discount it means you will pay 75% of the original price.

Examples:

1. Mr. Johnson is planning to finally give his fish Smeagol a good home. He finds a deluxe aquarium that is discounted by 15%. Its regular price is \$119.99.

- a. Calculate the sale price before taxes:

$$100\% - 15\% = 85\% \text{ of original price}$$
$$\therefore \$119.99 \times 0.85 = \$101.99$$

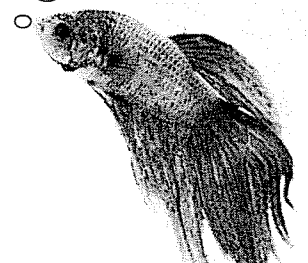
- b. Calculate the sale price including taxes:

(in BC)

$$\text{sale price} = \$101.99$$
$$100\% + 5\% + 7\% = 112\%$$

$$\therefore \$101.99 \times 1.12 = \$114.23$$

*It is about
time!*



c. Is there another way to calculate the solution to this problem?

hint to students: can you do it in a single step?

2. Mr. Johnson heard about a great deal on sweater vests. They were being sold for \$25.25 which was 20% off the original price. Mr. Johnson wants to know what the original price is so he can brag to his fellow math teachers about all the money he saved.

$$\text{original price} = 100\%$$

$$\begin{aligned} \text{discount price} &= 100\% - 20\% \\ &= 80\% \end{aligned}$$

$$\therefore \text{original price} = \frac{\$25.25}{0.8}$$

$$= \$31.56$$

$$\begin{aligned} \text{Savings} &= 31.56 - 25.25 \\ &= \$6.31 \end{aligned}$$

Mr. Johnson's

savings total

\$6.31 per

sweater vest!



Assignment:

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#'s 4-10, 12, 20