



## Discounts and Taxes

Suggested time: 75 min

### **What's important in this lesson:**

Students will use their knowledge of percents to apply to discounts and taxes.

### **Complete these steps:**

1. Read the lesson portion of the package on your own.
2. Complete the exercises as they appear in the lesson.
3. Check your answers with the answer key that your teacher has.
4. Ask for help at any point during the lesson.
5. Complete the "Unit 2, Lesson 3 Discounts and Taxes Assignment" and submit to your teacher for evaluation.

### **Hand-in the following to your teacher:**

1. "Unit 2, Lesson 3 Discounts and Taxes Assignment"

### **Questions for the teacher:**

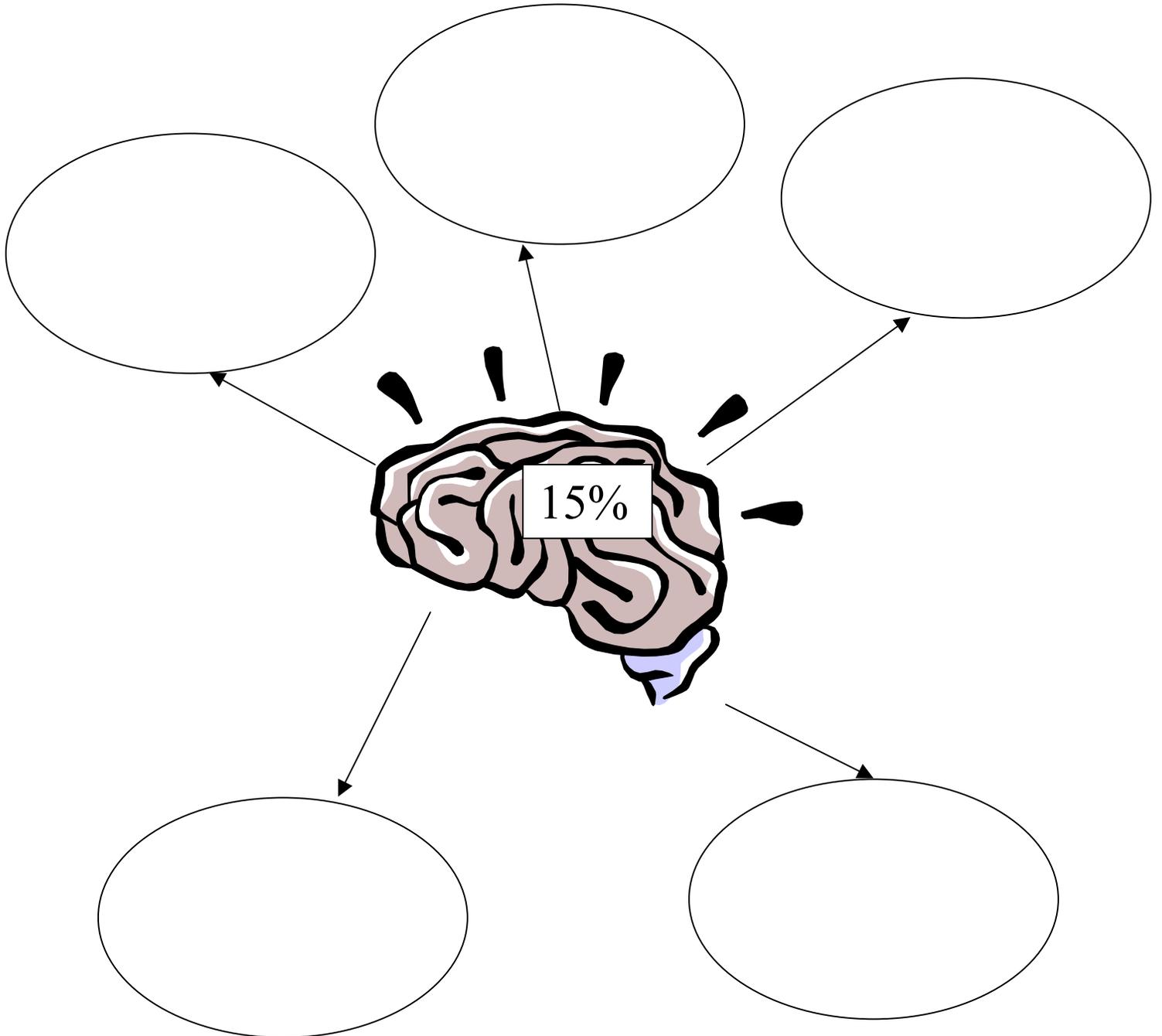
Student Instruction Sheet: Unit 2 Lesson 3





## Mind Map: What is 15%?

Complete the following mind map by brainstorming facts/ descriptions about 15%.





## Discounts and Taxes

Percent applications are part of our life. We pay taxes, borrow/invest money, seek out sales.

Taxes: there are many kinds of taxes ie; Sales, GST, property, tire, income and import to name a few. For the purposes of this lesson, use PST=8% and GST=7%.



### **Example 1:**

A camcorder sells for \$755. What is the sales tax amount?

Let's calculate the PST and GST separately. Then we will calculate the total in tax.

### **Solution:**

PST → 8% of \$755 and GST → 7% of \$755  
 PST →  $0.08 \times 755$  and GST →  $0.07 \times 755$   
 PST → 60.40 GST → 52.85  
 Together:  $60.40 + 52.85 = 113.25$

We can convert the percentages to decimals and change the "of" to multiply. Compute Sum the total tax.

Therefore, the total amount of tax is \$113.25.

Alternately, we know that we must pay GST and PST, so we can reduce our calculations by using a total of 15% (GST + PST). In fact, we can make the calculation much simpler...

We know that

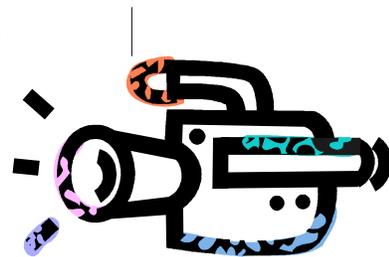
$$\begin{aligned} \text{Total} &= \text{original price} + \text{tax} \\ &= 755 + 0.15(755) \end{aligned}$$

$$\begin{aligned} \text{Which we can rewrite as} &= 755(1+0.15) \\ &= 755(1.15) \\ &= 868.25 \end{aligned}$$

The total price including the tax for the camcorder is \$868.25.

Every tax calculation can be done like this...

**Here's the trick for calculating total price with taxes = (price)x(1.15)**



**Example 2:**

Skis are on sale for 35% off. A pair of skis regularly sells for \$195. What is the price after the discount?

**Solution:**

Determine the amount of the discount. 35% of \$195  
 Rewrite.  $0.35 \times 195$   
 Calculate  $= 68.25$   
 The discount is \$68.25.



Now calculate the sale price by subtracting the discount.

$$195 - 68.25 = 126.75$$

Therefore, the sale price for the skis is \$126.75.

**Exercise 3.1 Calculating Taxes/Discounts**

1. A pair of skates costs \$229.95.
  - (a) Calculate the PST (8%) on the skates.
  - (b) Calculate the GST (7%) on the skates.
  - (c) Calculate the total cost using tax amounts from (a) and (b)
  - (d) Multiply the price of the skates by 1.15. What does this amount represent?
2. Calculate the total cost, including GST and PST, for each amount.
 

(a) \$4.50	(b) \$17.90
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3. A \$329.99 DVD player is on sale at 35% off. What is the cost with taxes for each sale?



### The Best Deal?

Determine the cost of the jeans for each scenario. (with and without 15% tax)

Example: 25% off the sales ticket price of \$83.50

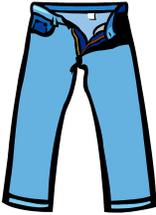
$$\begin{aligned} \text{Amount of discount} &= 25\% \times \$83.50 = 0.25 \times \$83.50 \\ &= \$20.87 \end{aligned}$$

$$\begin{aligned} \text{Sale price} &= \$83.50 - \$20.87 \\ &= \$62.13 \end{aligned}$$

$$\begin{aligned} \text{With tax} &= \$62.13 \times 1.15 \\ &= \$71.45 \end{aligned}$$

1. 10% off the sales ticket price

\$54.99



2. 40% off the sales ticket price

\$79.99



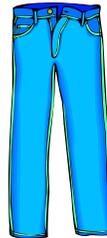
3. 50% off the sales ticket price

\$98.50



4. 30% off the sales ticket price

\$64.99



Which pair of jeans would you buy? Why?



## Discounts and Taxes

For each question, include GST=7% and PST=8%.

1. Jacquie works for her mother helping to clean houses. Her mother has agreed to pay her \$6.50/hour. Last week, Jacquie worked for 15 hours. How much money did Jacquie earn?
2. Being a teenager, money doesn't last long in the hands of Jacquie. She is off to the mall to spend her earnings. Jacquie goes to the store and buys a new purse. The price on the tag says \$29.85. Calculate the total including tax.
3. How much money does Jacquie have left?
4. The burger joint is offering a 25% discount on their #1 combo. Jacquie wants to buy herself lunch. She purchases the combo which has the original price of \$6.25. Calculate her total lunch cost. (include discount and tax)