Name:			
maine.			



GN 5.3 -Percent Increase & Decrease Equations **Finding Discounts and Markups**

Example 1a: Find 20% discount on a \$38.50 shirt at Aeropostale.



Long Way (Scenic Route)



Steps:

Shortcut Method:

If you are not receiving a discount; what percent are you paying for?

If you are NOT paying for 20% of the price; what price ARE you paying for?

Finding Tax

How much is the total if you pay an 8% tax on a \$85.32 bill?



Method 1:

- 1.) Find 8% of \$85.32
- 2.) ADD the tax to the amount.
- 3.) Round to nearest cent:

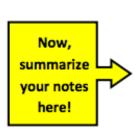
Method 2:

- 1.) Find 108% of \$85.32
- 2.) Round to nearest cent:



Why did we use 108%??





5.3 PRACTICE PROBLEMS

1. MATCHING

Match the term to the example:	
1) Even though I bought \$10 worth of pencils; I had to pay \$10.88.	a) Sales Tax
2) Kent carried my bags up to my hotel room so I gave him \$5.	b) Tip
3) Joyce bought a sequin top for 20% off.	c) Commission
4) Tommy made \$340 plus his salary because he rented out a lot of	d) Discount
apartments this week.	
5) Porsche ordered three pairs of shoes for \$20 each and was	
charged \$65.25.	

Solve the following Mark Up and Discount Problems

2. Suzy just bought the new laptop. It was \$459 plus 8% sales tax. How much was her total purchase? There are two ways to solve this problem



Original (% Owed/Required) = Result	
3. Sales tax in Michigan is 6%. What would the price of a \$35 shirt be after sales tax? Equation:	4. Sears is selling table for \$140. If this price represents the new price after a 25% markup, what was the original price before the mark-up? Equation:
5. If you get a 20% employee discount on a pair of boots that cost \$145, how much would the sales price be? (Assume there is no sales tax) Equation:	6. You bought a dress for 35% off. If the sale price was \$85, what was the original price of the dress? Equation:
7. A patient requires a 30% decrease in the dosage of his medication. His current dosage is 340 mg. What will his dosage be after the decrease? Equation:	8. Manuel found a wrecked Trans-Am that he could fix. He bought the car for 65% of the original price of \$7200. What did he pay for the car? (Round to nearest dollar) Equation:

E

9. Pamela bought an electric drill at 85% of the regular price. She paid \$32.89 for the drill. What was the regular price? (Round to the nearest cent) Equation:	10. If your cell phone bill was \$67.82 and there is a 7.5% late fee, how much will your bill be? Equation:
11. In a bicycle store, a \$500 bicycle is marked, "Get a 25% discount." What is the sale price of the bicycle? Equation:	12. The price of a new car is \$29,990. If the sales tax rate is 6.5%, then how much sales tax is being charged? What is the total cost for the car after tax? Equation:
13. Maria paid \$28.00 for a jacket that was discounted by 30%. What was the original price of the jacket? Equation:	14. Sugar-free gum contains 40% less calories than regular gum. If a piece of regular gum contains 40 calories, how many calories does a piece of sugar-free gum contain? Equation:

15. If your cell phone bill was \$67.82 and there is a 7.5% late fee, how much will your bill be?	16. You buy a pair of jean that is 33% off the original price of \$29. What is the sale price?
Equation:	Equation:
 Skateboards A store that sells skat 	reboards buys them from a
manufacturer at a wholesale price of What is the retail price?	
what is the retail prices	
Equation:	
18. Rick bought 3 shirts for \$18 each, 2 pair \$45.00. The sales tax rate is 8.5%. How	r of socks for \$3.99 a pair, and a pair of slacks for
	macif and he pay.
Equation:	
19.	
Jackets You have \$50 to spend at a	clothing store. You find a jacket
that is on sale for 15% off the origina	al price. If the original price of the
jacket is \$60 and there is no sales tax buy the jacket? Explain.	k, do you nave enough money to
Equation	
Equation:	

20.	Challenge A sign says that the price marked on all music equipment is 30% off the original price. You buy a drum set for the sale price of \$315. What is the original price?
	Equation:
21.	Explain If you know the sales tax amount and the total cost of an item, explain how you can find the original price of the item.
	Equation:

- **22.MULTIPLE CHOICE:** In order for a school to allow a vending machine to be placed next to the cafeteria, 65% of the school's population must ask for it. If 340 of the school's 650 students have requested the vending machines, how many more are needed to get the vending machines?
 - A. 75
 - B. 83
 - C. 89
 - D. 99

Example 23: Photographer Double Check

Part 1: Read the introduction from Mrs, Urquhart below.

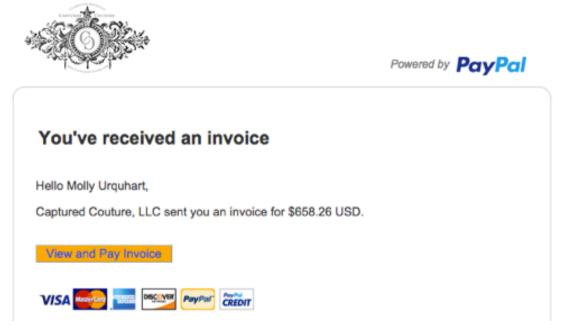
Mrs. Urquhart, "I needed a photographer for my wedding and I only budgeted \$1700 for this service. After meeting with a wedding photographer I liked, she recommend I go with the 8 hour package opposed to the 6 hour package. I told her about my price limit and she showed me the package options, which read:

6 hour - \$1450 8 hour - \$1750 10 hour - \$2050

I decided to splurge and go with the 8-hour package. She the told me in order to book her I needed to put down 30% of the total bill and I said that would be fine."

Part 2: Approximate how much money 30% down of the total bill should be after sales tax?

<u>Part 3</u>: The next day I received the following invoice. What does this bill represent? Does it appear accurate? Why or why not?



Part 4: Given the invoice, how much should the total bill come out to?
(Don't forget to include 6% Sales tax) How much more will Ms. Urquhart have to pay her photographer before her wedding day?

Part 5: What is the next step/action you should take to check the photographer off your to-do list?