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DISCRETE

TROI/CI/GOSSE

FINAL REVIEW #3: SALES TAX/DISCOUNTS/GRATUITY AND UNIT ANALYSIS

FINAL EXAM: 5/31/18 & 6/1/18

TOPIC #1: TAX/DISCOUNTS/GRATUITY

DISCOUNT (FIRST)	TAX (SECOND)
<p>1. Take percent of total *Remember to always move the decimal 2 PLACES TO THE LEFT (Or divide by 100)*</p> <p>2. SUBTRACT from total price</p> <p>*WHEN USING BOTH PERCENT AND CASH DISCOUNTS, ALWAYS APPLY PERCENT DISCOUNTS BEFORE CASH DISCOUNTS*</p>	<p>1. Take given percent from total. If there was a discount, use that total. *Remember to always move the decimal 2 PLACES TO THE LEFT (Or divide by 100)*</p> <p>2. ADD percent to the total price</p> <p>*ALWAYS APPLY DISCOUNTS BEFORE TAX*</p>
GRATUITY (THIRD)	
<p>1. Take percent of total *Remember to always move the decimal 2 PLACES TO THE LEFT (Or divide by 100)*</p> <p>2. ADD to the total price</p> <p>*GRATUITY IS ALWAYS THE LAST THING YOU APPLY TO YOUR TOTAL!*</p>	

1) Cayla goes to ^{the} hair salon and gets her hair cut for \$93, her hair highlighted for \$65, and a manicure and pedicure for \$28. The sales tax of 6.75% and she leaves a 15% tip, how much is her total?

$$93 + 65 + 28 = 186$$

$$186 \times .0675 = 12.56$$

$$186 + 12.56 = 198.56$$

$$198.56 \times .15 = 29.78$$

$$198.56 + 29.78 = \boxed{228.34}$$

2) Christine goes shopping and buys a shirt for \$27, jeans for \$75, and shoes \$45. The sales tax of 8.625%, how much is her total?

$$27 + 75 + 45 = 147$$

$$147 \times .08625 = 12.68$$

$$147 + 12.68 = \boxed{159.68}$$

3) Victoria goes to Best Buy and buys a computer for \$899, a printer for \$199, and paper and ink for \$79. She has a 22% coupon, and pays sales tax of 4.3%. How much does she pay for everything?

$$899 + 199 + 79 = 1177$$

$$1177 \times .22 = 258.94$$

$$1177 - 258.94 = 918.06$$

$$918.06 \times .043 = 39.48$$

$$918.06 + 39.48 = \boxed{957.54}$$

4) Louis goes to the Apple store and buys a computer for \$1500, a printer for \$250, and paper and ink for \$177. He has a 15% coupon, and pays sales tax of 6.5%. How much does he pay for everything?

$$1500 + 250 + 177 = 1927$$

$$1927 \times .15 = 289.05$$

$$1927 - 289.05 = 1637.95$$

$$1637.95 \times .065 = 106.47$$

$$1637.95 + 106.47 = \boxed{1744.42}$$

5) Amanda goes furniture shopping at Bloomingdales. She buys a mattress for \$5600, a dresser for \$2100, a night table for \$1050, and a coffee table for \$241. She has a coupon for 20% off and a coupon for \$50 off. She is allowed to use both coupons. The sales tax rate is 8.625%. What was the total amount that she spent?

$$5600 + 2100 + 1050 + 241 = 8991$$

$$8991 \times .20 = 1798.20$$

$$8991 - 1798.20 = 7192.80$$

$$\begin{array}{r} 7192.80 \\ - 80.00 \\ \hline 7112.80 \end{array}$$

$$7112.80 \times .08625 = 612.67$$

$$7112.80 + 612.67 = \boxed{7725.47}$$

\$999 Fix!

6) Nick went to Brands bike shop and bought a brand new bike with a helmet and a mini computer for the bike. The bike cost \$749 while the helmet costs \$28.95 and the mini computer is \$59.99. He has a coupon for 17% off and \$250 off and is allowed to use both. The sales tax of 7.95%. How much is his total?

$$749 + 28.95 + 59.99 = 837.94$$

$$837.94 \times .17 = 142.44$$

$$837.94 - 142.44 = 695.50$$

$$695.50 - 250 = 445.50$$

$$445.50 \times .0795 = 35.41$$

$$445.50 + 35.41 = \boxed{480.91}$$

TOPIC #2: UNIT ANALYSIS

MEASURE COUNT	UNIT PRICE	ITEM PRICE
$\frac{\text{Item Price}}{\text{Unit Price}}$	$\frac{\text{Item Price}}{\text{Measure Count}}$	Measure Count x Unit Price

1) Calculate the missing information.

Measure Count	Unit Price	Item Price
21 oz of turkey	\$0.89 per oz	18.69
5.5 lbs. of Salmon	\$8.5/lb	\$46.75
48 oz of Coffee	\$0.07/oz	\$3.36
1.20 oz of ice cream	\$1.25 per oz	\$10.50
4.5 lbs of pears	\$1.29 per lb.	\$5.81

2) Find the Unit Price

Special Item Price	Unit Price
6 Grapefruits for \$8.00	$\frac{\$8.00}{6} = \$1.33/\text{grapefruit}$
5 Pair of Jeans for \$299.95	$\frac{\$299.95}{5} = \$59.99/\text{jeans}$
3 Dozen eggs for \$3.99	$\frac{\$3.99}{3} = \$1.33/\text{dozen}$
5 rims for \$8,500	$\frac{\$8500}{5} = \$1700/\text{rim}$
Buy one shirts get one free for \$45.00	$\frac{\$45}{2} = \$22.50/\text{shirt}$

3) Calculate the missing information.

Measure Count	Unit Price	Item Price
17 oz of roast beef	\$0.79 per oz	\$13.43
3.25 lbs. of pork loin	\$16.77/lb	\$54.50
36 oz of peanuts	\$0.52/oz	\$18.99
5.5 oz of cheese	\$1.40 per oz	\$7.70
3.5 lbs of chicken	\$2.99 per lb.	\$10.47

4) Find the Unit Price

Special Item Price	Unit Price
8 cantaloupes for \$10.00	$\frac{\$10.00}{8} = \$1.25/\text{cantaloupe}$
7 Pair of Jeans for \$244.93	$\frac{244.93}{7} = \$34.99/\text{jeans}$
5 Dozen eggs for \$5.95	$\frac{5.95}{5} = \$1.19/\text{dozen}$
5 rims for \$12,250	$\frac{12250}{5} = 2450/\text{rim}$
Buy one shirts get one free for \$62.00	$\frac{62.00}{2} = \$31/\text{shirt}$

5) Jenna wants to purchase fresh baked cookies, 6 pound box costs \$17.04 and an 8.5 pound box costs \$24.82

a. What is the unit price per pound for each box?

$$6 \text{ lb} \quad \frac{17.04}{6} = \boxed{2.84/\text{lb}}$$

$$8.5 \text{ lb} \quad \frac{24.82}{8.5} = \boxed{2.92/\text{lb}}$$

b. Which box is a better buy?

The 6 lb box is better b/c it is cheaper/lb.

6) Tom wants to purchase potato chips. An 8 ounce bag of potato chips costs \$2.00. What is the unit price per ounce?

$$\frac{\$2.00}{8} = .25/\text{ounce}$$

7) Mike purchases a sport drink. A 32 ounce bottle costs \$1.10 and a 64 ounce bottle cost \$2.00.

a. What is the unit price per ounce for each bottle?

$$\underline{32 \text{ oz}}: \frac{1.10}{32} = .03/\text{oz}$$

$$\underline{64 \text{ oz}} \quad \frac{2.00}{64} = .03/\text{oz}$$

b. Which bottle is the better buy?

They are the same price /oz - get the \$64 oz

8) Leanne wants to purchase a fleece from Old Navy. Each fleece is regularly \$28.50. This week the sale is 2 for \$36.50.

a. What is the unit price?

$$\frac{28.50}{2} = \boxed{\$14.25 / \text{fleece}}$$

b. How much does she save on the fleece?

$$28.50 - 14.25 = \boxed{\$14.25}$$

9) Eric wants to purchase fresh fish, 6.5 pounds of sea bass costs \$49.64 and 7.5 pounds costs \$56.82

a. What is the unit price per pound?

$$6.5 - \frac{49.64}{6.5} = \boxed{\$7.64}$$

$$7.5 - \frac{56.82}{7.5} = \boxed{\$7.58}$$

b. Which is a better buy?

The 6.5 lb box b/c it is cheaper per lb

10) Conner wants to purchase peanuts. A 12 ounce bag of peanuts costs \$1.75. What is the unit price per ounce?

$$\frac{1.75}{12} = \boxed{.15 / \text{oz}}$$

