3-7-17

Aim: SWBAT review.

Do Now:

HW: Study for tomorrow's test

Name ___Key___   Date_____

Review   Period ___

Insert the words from the box into the correct place in each formula.

| Price |
| Total Price |
| Tax |

___Price___ + ___Tax___ = ___Total Price___

| Sale Price |
| Discount |
| Original Price |

___Original Price___ - ___Discount___ = ___Sale Price___

| Markup |
| Retail Price |
| Wholesale Price |

___Wholesale Price___ + ___Markup___ = ___Retail Price___

Complete the following chart.

FRACTION	PERCENT	DECIMAL
$\frac{23}{10}$	1. 230%	2. 2.3
3. $\frac{26}{25}$	4. 104%	1.04
5. $\frac{9}{16}$	56.25%	6. 0.5625
7. $\frac{13}{150}$	$8\frac{2}{3}$%	8. 0.086

11. Write 2.735 as a percent?   273.5%

13. If the sales tax is $5\frac{1}{2}$%, what is the sales tax on a jacket priced at $45.89?

$$\frac{x}{45.89} = \frac{5\frac{1}{2}}{100}$$ $\frac{100x}{100} = \frac{252.395}{100}$ $x \approx 2.52$ (0.055)(45.89)
2.52395
or $2.52

x = 2.52395

14. If George earns 13.5% commission on his sales, how much does he earn if he sells $2042.98 worth of merchandise?

$$\frac{x}{2042.98} = \frac{13.5}{100}$$ $\frac{100x}{100} = \frac{27580.23}{100}$

x = $275.8023

x ≈ $275.80

Name _____   Date_____
                                        Review   Period ____

15. The regular price of a microwave is $289.59. If it is discounted 20%, what is the sale price?

$$\frac{x}{289.59} = \frac{20}{100}$$ $100x = 5791.8$ $289.59 - 57.918 = 231.672$

$$x = 57.918$$ discount

$$\boxed{\$231.67}$$

16. Which of the following is the amount of interest earned when $2275 is invested at 18% for $3\frac{1}{2}$ years?

$$I = PRT$$
$$I = (2275)(0.18)(3.5)$$
$$\boxed{I = \$1433.25}$$

17. If a house valued at $65,000 increases in value by 9%, what is the new value of the house?

$$\frac{x}{65000} = \frac{9}{100}$$ $100x = 585000$ $65000 + 5850$

$$x = 5850$$ amt. of increase

$$\boxed{\$70,850}$$

18. If last year's taxes were $847.89 and this year's taxes are $932.13, what is the percent of increase in taxes? $932.13 - 847.89 = 84.24$ $\frac{84.24}{847.89} = \frac{x}{100}$

$$847.84x = 8424$$ $x = 9.93$

$$x = 9.9\%$$

20.   Joann paid $27 for a pair of jeans? The following week, there was a 20% discount on the jeans. How much would Joann have saved if she had waited to buy the jeans?

$$\frac{x}{27} = \frac{20}{100}$$ $100x = 540$

$$\boxed{x = 5.40}$$

22. The regular price of a shirt is $45.95. If there is a 30% discount and a 6% sales tax, what is the **total cost** of the shirt?

$$45.95 - 13.785$$ $= 32.165$ $\frac{x}{32.165} = \frac{6}{100}$ 32.165

$$\frac{x}{45.95} = \frac{30}{100}$$ $100x = 1378.5$ $100x = 192.99$ $+1.9299$

$$x = 13.785$$ $x = 1.9299$ $\boxed{\$34.09}$

23. At a restaurant, the food bill comes to $27.63. The sales tax is 6% and you are leaving an 18% tip. What is the **total cost** of the meal?

$$\frac{x}{27.63} = \frac{6}{100}$$ $100x = 165.78$ $\frac{x}{27.63} = \frac{18}{100}$ $100x = 497.34$

$$x = 1.6578$$ tax $x = 4.9734$

$$27.63 + 1.6578 + 4.9734 = 34.2612$$ tip $\boxed{\$34.26}$

24. The wholesale price of a couch is $235. A store marks up the price by 169%. When the couch does not sell, the store offers a 20% discount. What is sale price of the couch?

$$\frac{x}{235} = \frac{169}{100}$$ $100x = 39715$ $235 + 89.715 = 632.15$ $(0.20)(632.15)$

$$x = 397.15$$ markup   retail price 126.43 disc.

$$632.15 - 126.43$$

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(23) Original Price: _____?_____

Discount: 20%

Sales Tax: 7.5%

Final Price: $43
        ↗

Price + tax

$$\frac{43}{B} = \frac{107.5}{100}$$

$$\frac{107.5B}{107.5} = \frac{4300}{107.5}$$

$$B = 40 \leftarrow \text{sale price before tax}$$

$$\frac{40}{B} = \frac{80}{100}$$

$$\frac{80B}{80} = \frac{4000}{80}$$

$B = ^\$50$ ← price before discount

(24) Original Price: $150

Discount: _____?_____

Sales Tax: 5%

Final Price: $126

$$\frac{126}{B} = \frac{105}{100}$$

$$\frac{105B}{105} = \frac{12600}{105}$$

$$B = ^\$120 \leftarrow \text{sale price before tax}$$

$$150 - 120 = 30 < \text{amt of discount}$$

$$\frac{30}{150} = \frac{r}{100}$$

$$\frac{150r}{150} = \frac{3000}{150}$$

$$r = 20$$

$R = 20\%$

(25) Original Price: $75
Discount: 18%
Sales Tax: ___?___
Final Price: $63.96

$(0.82)(\$75) = \$61.50 \leftarrow$ sale price

$\$63.96 - \$61.50 = \$2.46$

$$\frac{\$2.46}{\$61.50} = \frac{r}{100}$$

$$\frac{61.50r}{61.50} = \frac{246}{61.50}$$

$r = 4$

$R = 4\%$

Do Now: Food Bill: $37.50
Tax: 8%
Tip: 18% after tax

2. You earn 10% commission on your sales. This week
    you earned $50 in commission. What were your
    total sales?

$$\frac{50}{x} = \frac{10}{100}$$

$$\frac{10x}{10} = \frac{5000}{10}$$

$$x = \$500$$

- Original Price + Tax = Total Price

- Original Price - Discount = Sale Price
  (savings)

- Wholesale Price + Markup = Retail Price

- Food Price + Tax + Tip = Total

If there is a discount and tax,
1. Find the amount of discount (savings).
2. Subtract the discount from the original price to find the sale price.
3. Find amount of tax on the sale price.
4. Add the sale price and tax for the total.

If there is a markup and a tax,
1. Find the amount of markup.
2. Add the wholesale price and the amount of markup to find the retail price.
3. Find the amount of tax on the retail price.
4. Add the retail price and the tax for the total.

If there is a markup and a discount,
1. Find the amount of markup.
2. Add the wholesale price and the amount of markup to find the retail price.
2. Find the amount of discount(savings) out of the retail price.
3. Subtract the discount from the retail price to find the sale price.