Sales Tax and Commission

1. A person purchases a television for $674.99. What is the sales tax amount if the sales tax rate is 8.95%?

2. The total price paid for a dining table was $913.62. The price tag indicates a purchase price of $843.99. What is the sales tax rate?

3. A sales person sells $2,973.56 worth of home appliances in one week. His commission rate is 15.75%. How much commission did he earn?

4. A recent paycheck showed that a sales clerk earned $1,234.53 for one month of sales. If the sales clerk sold $18,705.00 worth of merchandise, what is the commission rate?

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1. A person purchases a television for $674.99. What is the sales tax amount if the sales tax rate is 8.95%?

Recall: $(\%) \cdot (\text{Total}) = (\text{Portion})$

$$\left(\frac{\%}{\text{Tax}}\right) \cdot \left(\frac{\text{Purchase}}{\text{Price}}\right) = \left(\frac{\text{Amount of}}{\text{Sales Tax}}\right)$$

So to find the amount of Sales Tax, multiply the "% Tax" by the "Purchase Price"!

$$\left(\frac{\text{Amount of}}{\text{Sales Tax}}\right) = (0.0895) \cdot (674.99) = \boxed{\$60.41}$$

NOTE: $8.95\% = 0.0895$

2. The total price paid for a dining table was $913.62. The price tag indicates a purchase price of $843.99. What is the sales tax rate?

$$\left(\frac{\text{The Amount of}}{\text{Sales Tax}}\right) = \left(\frac{\text{Total}}{\text{Price}}\right) - \left(\frac{\text{Purchase}}{\text{Price}}\right)$$

$$= 913.62 - 843.99$$

$$= \underline{69.63}$$

$$\left(\frac{\text{Amount of}}{\text{Sales Tax}}\right) = \left(\frac{\text{Purchase}}{\text{Price}}\right) \cdot \left(\frac{\%}{\text{Tax}}\right) \qquad X = 0.0825$$

$$\boxed{X = 8.25\%}$$

$$\frac{69.63}{843.99} = \frac{843.99 \cdot X}{843.99} \qquad \text{Sales Tax Rate!}$$

$$0.0825 = X$$

3. A sales person sells $2,973.56 worth of home appliances in one week. His commission rate is 15.75%. How much commission did he earn?

$$\left(\begin{array}{c}\text{The amount of}\\\text{Commission}\end{array}\right) = \left(\begin{array}{c}\%\\\text{Commission}\end{array}\right) \cdot \left(\begin{array}{c}\text{Total}\\\text{Sales}\end{array}\right)$$

$$= (0.1575) \cdot (2,973.56)$$

$$= 468.34$$

ANSWER
$468.34

4. A recent paycheck showed that a sales clerk earned $1,234.53 for one month of sales. If the sales clerk sold $18,705.00 worth of merchandise, what is the commission rate?

$$\left(\begin{array}{c}\text{The amount of}\\\text{Commission}\end{array}\right) = \left(\begin{array}{c}\%\\\text{Commission}\end{array}\right) \cdot \left(\begin{array}{c}\text{Total}\\\text{Sales}\end{array}\right)$$

$$1,234.53 = x \cdot 18,705.00$$

$$\frac{1,234.53}{18,705.00} = \frac{18,705.00 \, x}{18,705.00}$$

$$0.066 = x$$

Therefore the Commission Rate is 6.6%!