

Bell Ringer: 84 is 16% of what number?

$$\frac{84}{x} = \frac{16}{100}$$

$$16x = 8400$$

$$x = 525$$

## Solving Percent Problems - Day 2

### Real-life Percent Applications

**Sales Tax** - a tax (fee) charged on the sale of an item or a service provided. Tax is **part** of a total cost.

**Commission** - an amount of money paid to a salesperson from the sale of items. A commission is **part** of a total salary.

1) A salesperson earns a weekly salary of \$375 plus a 8% commission on his bicycle sales for the week. If a salesperson's bicycle sales for the week total \$4,500, how much is the salesperson's commission? How much is his total paycheck?

$$\frac{C}{4500} = \frac{8}{100}$$

$$100C = 36000$$

$$C = 360$$

$$T.P. = 375 + 360 = \$735$$

2) Taylor purchased a \$25 pair of jeans and a \$30 sweatshirt.  
The sales tax rate was 7 1/2%. What was the total cost?

$$\text{Bought } \$55 \quad \frac{x}{55} = \frac{7.5}{100}$$

$$\text{Sales Tax} = \text{Rate as decimal} \times \text{cost of items}$$

$$= 0.075 \cdot 55$$

$$\begin{aligned} \text{T.C.} &= 55 + 4.13 \\ &= 59.13 \end{aligned}$$

3) Mr. Guss purchased a Blu-ray player for \$97.19 including tax. The Blu-ray player had a sticker price of \$89.99. About what percent sales tax did he pay?

Remember Sales Tax is a part

$$\begin{array}{r} \$97.19 \\ - 89.99 \\ \hline 7.20 \end{array}$$

$$\frac{7.20}{89.99} = \frac{x\%}{100}$$

$$89.99x = 720$$

$$x = 8\%$$