

Solving Percent Problems

"of" means multiply

Example (1): Find each of the following percentages.

A. 15% of 32

$$0.15 \times 32 = 4.8$$

$$\begin{array}{r} .15 \\ \times 32 \\ \hline 30 \\ 450 \\ \hline 4.80 \end{array}$$

B. 2% of 12

$$0.02 \times 12 = 0.24$$

$$\begin{array}{r} 12 \\ \times 0.02 \\ \hline .24 \end{array}$$

① change percent to decimal

② of mean multiply

③ use decimal multiplication rules:

- treat as whole #'s
- last step place decimal.

Example (2): A jacket originally cost \$48.00. It is on sale for 25% off.

A. What is the discount dollar amount?

Discount is 25% of \$48

$$\text{Discount} = 0.25 \times 48 = \$12$$

$$\begin{array}{r} .25 \\ \times 48 \\ \hline 200 \\ +1000 \\ \hline 12.00 \end{array}$$

B. What is the sale price of the jacket?

$$\begin{aligned} \text{Sale Price} &= \text{Original Amount} - \text{Discount} \\ &= 48 - 12 \\ &= \$36 \end{aligned}$$

"is" means equal

Example (3): The price of a sweater costs \$36.
The Goods and Services tax is 8%.

A. Find the dollar amount of taxes.

Tax is 8% of \$36

$$\begin{aligned}\text{Tax} &= 0.08 \times 36 \\ &= \$2.88\end{aligned}$$

$$\begin{array}{r} 4 \\ 36 \\ \times 0.08 \\ \hline 288 \end{array}$$

B. Find the total amount paid.

$$\begin{aligned}\text{Total Cost} &= \text{Original amount} + \text{taxes} \\ &= 36 + 2.88 \\ &= \$38.88\end{aligned}$$

$$\begin{array}{r} 36.00 \\ + 2.88 \\ \hline 38.88 \end{array}$$

Add/Sub Decimals

- line up decimals
- use zeros as place holders.