

# Percent of a Number

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To find the percent OF a number:

Method ① convert the percent to a decimal, then multiply!

Ex. Find 23.1% of 408

$$\begin{array}{l} \text{↑} \\ 23.1 \div 100 = 0.231 \end{array} \quad \begin{array}{l} \text{Divide OR} \\ \text{move Decimal} \\ 2 \text{ spaces Left} \end{array}$$
$$0.231 \times 408 = 94.248$$

Ex. Find  $71\frac{3}{4}\%$  of 510

$$\begin{array}{l} \text{↑} \\ 71.75\% \end{array}$$

$$0.7175 \times 510 = 365.925$$

Method ② set up a proportion, then cross-multiply and divide.

Ex. Find 138% of 425

% means per 100

$$\begin{array}{c} \downarrow \\ \frac{138}{100} = \frac{?}{425} \end{array}$$

$$138 \times 425 \div 100 = 586.5$$

## Word Problems

Taxes - Find the tax and ADD

Sale Prices - Find the discount and SUBTRACT

Ex. Layla is buying a new dress. It costs

\$ 29.55, and the tax is 11.5%. Find the total.

Tax:  $\nwarrow 11.5\% \text{ of } \$29.55$

$$0.115 \times 29.55 = \$3.39825$$

$\uparrow$   $\curvearrowright \$3.40$

Total:  $\$29.55 + \$3.40 = \boxed{\$32.95}$

Ex. A necklace costs \$165.35. It's on a 30% off sale. What is the sale price?

Discount: 30% of \$165.35

$$\frac{30}{100} = ?$$
$$\frac{30}{100} = \frac{?}{165.35}$$
$$30 \times 165.35 \div 100 = \$49.605$$
$$\boxed{\$49.61}$$

Sale price:  $\$165.35 - \$49.61 = \boxed{\$115.74}$

\* NOTE:

$$\stackrel{\text{percent}}{75\%} = \stackrel{\text{decimal}}{0.75}$$

$$\stackrel{\text{percent}}{7.5\%} = \stackrel{\text{decimal}}{0.075}$$

$$\stackrel{\text{percent}}{\frac{3}{4}\%} = \stackrel{\text{percent}}{0.75\%} = \stackrel{\text{decimal}}{0.0075}$$