

Agenda: June 3rd

- Any questions Algebra Review
- Percentages Review + Practice

Reminder: Next week bring Prep book every day!

Percentages

$$\frac{\text{part}}{\text{total}} = \frac{\%}{100\%}$$

What is ^{- %} 15% of ^{- total} 60?

$$\frac{x}{60} = \frac{15\%}{100\%} \quad x = \frac{60 \times 15}{100} = 9$$

15% of what number is 33.75? ^{→ part}

$$\frac{33.75}{x} = \frac{15\%}{100\%} \quad x = \frac{33.75 \times 100}{15} = 225$$

Discount / Off / Rebate / Markdown / Less / Sale

$$\frac{\text{final price}}{\text{original price}} = \frac{100\% - \text{discount}\%}{100\%}$$

You paid 25\$ for a shirt after a 20% discount. What was the original price of the shirt?

$$\frac{25}{\text{original}} = \frac{80^{100-20}}{100}$$

$$x = \frac{100 \times 25}{80} = 31.25 \$$$

Tax / Markup / Tip

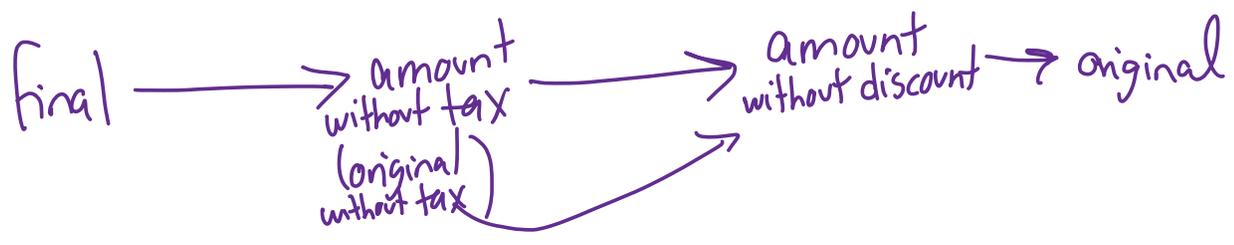
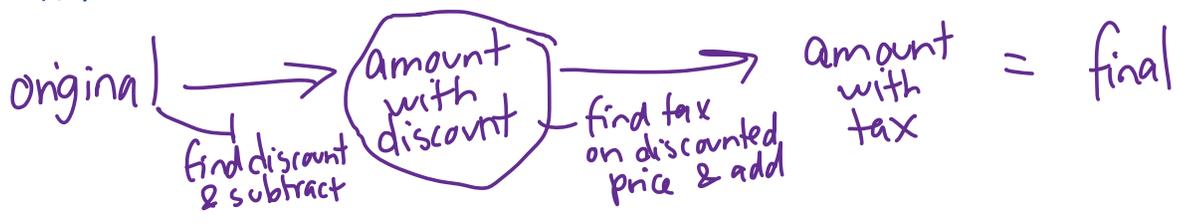
$\frac{\text{final price}}{\text{original price}} = \frac{100\% + \text{tax}\%}{100\%}$

You paid 30\$ for a shirt after 15% tax. What was the original price of the shirt?

$\frac{30}{x} = \frac{115}{100}$ $x = \frac{30 \times 100}{115} = 26.09\$$

100+15

Tax & Discount



Dimitri pays \$27.60 for a shirt. This price includes a 20% rebate and a 15% tax. What is the regular price of the shirt? - final price (27.60)

1) Amount paid without tax

$$\frac{\text{final}}{\text{original}} = \frac{100 + \text{tax}}{100}$$

$$\frac{27.60}{x} = \frac{115}{100} \quad x = \frac{27.60 \times 100}{115} = 24\$ \leftarrow \begin{array}{l} \text{price} \\ \text{w/o tax} \\ \text{but with} \\ \text{the discount} \end{array}$$

2) Amount paid without discount

$$\frac{\text{final}}{\text{original}} = \frac{100 - \text{discount}}{100}$$

$$\frac{24}{x} = \frac{80}{100} \quad x = \frac{24 \times 100}{80} = 30\$$$

The regular price of the shirt is 30\$