

Homework #39 - Multi-Step Percents Day One

1) Joan has a coupon for an additional 25% off the price of any sale item at a store. The store has a pair of shoes on sale for 15% off the original price of \$40. How much does Joan pay for the shoes?

$$\begin{aligned} \text{orig: } 40 & \quad x = 40(.15) \\ \text{disc: } x & \quad x = 6 \\ \%: 15 & \quad 40 - 6 = \$34 \end{aligned}$$

$$\begin{aligned} \text{orig: } 34 & \quad x = 34(.25) \\ \text{disc: } x & \quad x = 8.5 \\ \%: 25 & \quad 34 - 8.5 = \boxed{\$25.50} \end{aligned}$$

3) At a clearance sale, Zoe bought a jacket that was marked down 60%. The regular price of the jacket was \$89. There was a 7% sale tax. How much did Zoe pay for the jacket?

$$\begin{aligned} \text{orig: } 89 & \quad x = 89(.6) \\ \text{disc: } x & \quad x = 53.40 \\ \%: 60\% & \quad 89 - 53.40 = \$35.60 \end{aligned}$$

$$\begin{aligned} \text{orig: } 35.60 & \quad x = 35.60(.075) \\ \text{tax: } x & \quad x = \$2.67 \\ \%: 7\% & \quad 35.60 + 2.67 \\ & \quad \boxed{\$38.27} \end{aligned}$$

2) A sign says that the price marked on all makeup is 30% off the original price. Alyssa buys a cosmetic kit originally priced \$125. The store charges an 8.5% sale tax. What is the final cost of the cosmetic kit?

$$\begin{aligned} \text{orig: } 125 & \quad x = 125(.3) \\ \text{disc: } x & \quad x = 37.50 \\ \%: 30 & \quad 125 - 37.50 = 87.50 \end{aligned}$$

$$\begin{aligned} \text{orig: } 87.50 & \quad x = 87.50(.085) \\ \text{tax: } x & \quad x = \$7.44 \\ \%: 8.5\% & \quad 87.50 + 7.44 \\ & \quad \boxed{\$94.94} \end{aligned}$$

4) A clothing store is having an anniversary sale. Every piece of clothing in the store is marked down 15% with an additional 25% off. What is the sale price of a belt that has a regular price of \$23?

$$\begin{aligned} \text{orig: } 23 & \quad x = 23(.15) \\ \text{disc: } x & \quad x = 3.45 \\ \%: 15 & \quad 23 - 3.45 = \$19.55 \end{aligned}$$

$$\begin{aligned} \text{orig: } 19.55 & \quad x = 19.55(.25) \\ \text{disc: } x & \quad x = \$4.89 \\ \%: 25 & \quad 19.55 - \$4.89 \\ & \quad \boxed{\$14.66} \end{aligned}$$