

Two-Step Percentage Problems

Key

- 1.) Tammy goes to a sale at Dillards. She finds a \$120 sweater with a 20% off tag on it. The storewide sale takes an additional 12% off at the cash register. How much does the sweater cost?

$$\text{Discount \#1 (20\%)}: 120(0.2) = 24 \quad 120 - 24 = \underline{\$96}$$

$$\text{Discount \#2 (12\%)}: 96(0.12) = 11.52 \quad 96 - 11.52 = \underline{\$84.48}$$

\$84.48

- 2.) Steve buys a new i-Pod and accessories from Circuit City; they're regularly priced at \$400. There is a storewide sale of 8% off the cost of any electronics package on the day Steve shops. At the register, the store adds on a 6.5% sales tax. How much does Steve pay for his i-Pod?

$$\text{Discount (8\%)}: 400(0.08) = 32 \quad 400 - 32 = \underline{\$368}$$

$$\text{Tax (6.5\%)}: 368(0.065) = 23.92 \quad 368 + 23.92 = \underline{\$391.92}$$

\$391.92

- 3.) Boris buys a deluxe spy kit from the Acme corporation for \$250. The company charges Boris a 7% tax and then they charge him 5% of this total for shipping. How much does Boris pay for the spy kit?

$$\text{Tax (7\%)}: 250(0.07) = 17.50 \quad 250 + 17.50 = \underline{\$267.50}$$

$$\text{Shipping (5\%)}: 267.50(0.05) = 13.375 \quad 267.50 + 13.375 = \underline{\$280.875}$$

\$280.88

- 4.) Walt buys a new car. The sticker price for the car is \$15,000. The dealer gives him a 5% preferred customer discount, then adds on a 7% sales tax. How much does Walt pay for his car?

$$\text{Discount (5\%)}: 15,000(0.05) = 750 \quad 15,000 - 750 = \underline{\$14,250}$$

$$\text{Tax (7\%)}: 14,250(0.07) = 997.50 \quad 14,250 + 997.50 = \underline{\$15,247.50}$$

\$15,247.50

- 5.) Travis buys a new pair of glasses that normally cost \$400. He gets a 10% discount for having a Diamond Card, and the store offers an additional discount of 3% for paying cash. How much does Travis's pair of glasses cost?

- Discount (10%) $400(0.10) = 40$ $400 - 40 = 360$

- Discount (3%) $360(0.03) = 10.80$ $360 - 10.80 = 349.20$

\$ 349.20

- 6.) Penny sees a house for sale for \$145,000. When she contacts the dealer, she learns the owners reduced the cost by 14%. To buy the house, Penny must pay a 5% fee to the dealer on the final price. How much would Penny pay for the house?

- Discount (14%) $145,000(0.14) = 20,300$

145,000
- 20,300
\$ 124,700

+ Fee (5%) $124,700(0.05) = 6,235$ $124,700 + 6,235 = 130,935$

\$ 130,935

- 7.) A local weatherman sees a new piece of equipment for \$40,000. The station is able to get a 5% discount, but there would be a 15% shipping charge applied to the final cost. How much would they need to pay for the new weather forecasting tool?

- ① $40,000(0.05) = 2,000$
- ② $40,000 - 2,000 = 38,000$
- ③ $38,000(0.15) = 5,700$
- ④ $38,000 + 5,700 = 43,700$

- 8.) A dentist charges \$4500 for braces. Jim's parents are able to get a 9% discount, but there is an additional 6.5% sales tax added to the final price. How much money would Jim's parents pay for the braces?

- ① $4500(0.09) = 405$
- ② $4500 - 405 = 4095$
- ③ $4095(0.065) = 266.18$
- ④ $4095 + 266.18 = 4361.18$