

Solving Multistep Percent Problems with Tax, Tips and Discounts

Grade 7 math · Worksheet · Standards: 7.RP.A.3

Name: _____ Date: _____ Class: _____

These 20 problems build multistep percent reasoning from standard 7.RP.A.3: sales tax, tips, markups and markdowns, discounts, commission, fees and simple interest $I = Prt$.

The first six problems use one percent step. Later problems chain several steps, compare two offers, or work backward. Round money to the nearest cent at the end only.

Standards: 7.RP.A.3 · **Level:** Grade 7

Problem 1 Tip on a Meal (easy)

A meal costs \$36.50 and the customer leaves an 18% tip. Find the tip and the total.



A meal and its tip.

Problem 2 Sales Tax on Headphones (easy)

Headphones cost \$84. The sales tax rate is 6.25%. Find the tax and the total cost.

Problem 3 Shoe Discount (easy)

Running shoes are priced at \$65 and are on sale for 40% off. Find the discount and the sale price.

Problem 4 Furniture Commission (easy)

Rosa sells \$2,450 worth of furniture in one week and earns a 6% commission. How much commission does she earn?

Problem 5 Simple Interest Basics (easy)

A savings account holds \$1,200 at 3.5% simple interest per year. Find the interest after 4 years and the balance.

Problem 6 Scooter Markup (easy)

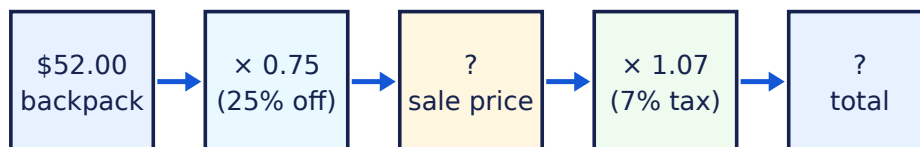
A shop buys a scooter for \$90 and marks up the price by 45%. Find the markup and the selling price.

Problem 7 Tax and Tip Together (medium)

A dinner costs \$48 before tax. The tax is 8% and the tip is 20% of the pre-tax price. What is the total?

Problem 8 Backpack Sale Then Tax (medium)

A backpack costs \$52 and is 25% off. Then 7% sales tax is charged on the sale price. What is the total?



Discount, then tax.

Problem 9 Two Discounts in a Row (medium)

A jacket marked \$150 is 20% off. A coupon then takes an extra 10% off the sale price. What is the final price? Is it the same as a single 30% discount?

Problem 10 Base Pay Plus Commission (medium)

Lena earns \$380 per week plus a 4.5% commission on her sales. One week she sells \$5,200 of products. What is her pay that week?

Problem 11 Finding the Time (medium)

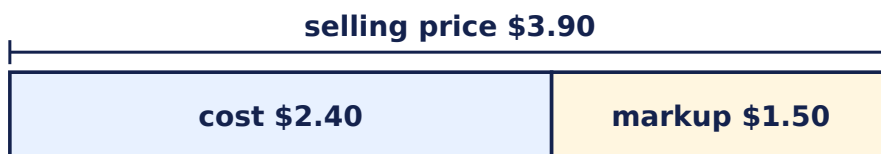
A deposit of \$2,500 earns \$225 in simple interest at 3% per year. For how many years was the money invested?

Problem 12 Finding the Rate (medium)

A loan of \$1,800 collects \$270 in simple interest over 5 years. What is the annual interest rate?

Problem 13 Percent Markup on Cost (medium)

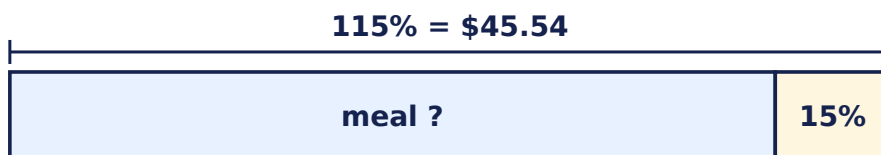
A bakery pays \$2.40 to make a loaf and sells it for \$3.90. What percent of the cost is the markup?



$$\text{Selling price} = \text{cost} + \text{markup} = \$3.90.$$

Problem 14 Meal Price Before the Tip (medium)

Including a 15% tip, a family paid \$45.54. What was the meal price before the tip, and how much was the tip?



$$\text{Total } 115\% = \$45.54.$$

Problem 15 Concert Ticket Fees (hard)

Four concert tickets cost \$62.50 each. The order has a service fee of 8% of the ticket subtotal plus a flat \$6.50 processing fee. Find the total, and the percent of the ticket subtotal that the fees make up.

Problem 16 Comparing Savings Plans (hard)

Plan A deposits \$3,200 at 2.75% simple interest for 6 years. Plan B deposits \$3,200 at 3% simple interest for 5 years. Which plan earns more interest, and how much more?

Plan	Principal	Rate	Years
A	\$3,200	2.75%	6
B	\$3,200	3%	5

Two simple-interest plans for Problem 16.

Problem 17 Which Store Is Cheaper (hard)

Store A sells a tablet for \$240 with 15% off, then adds 6% sales tax. Store B sells the same tablet for \$225 with 8% sales tax and no discount. Which store has the lower total, and by how much?

Problem 18 Tiered Commission (hard)

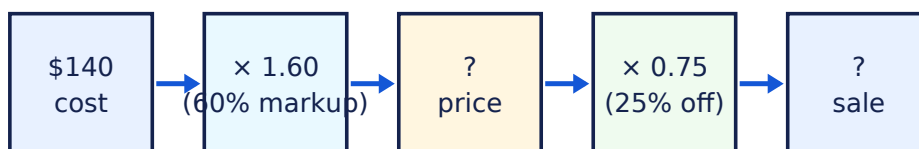
A salesperson earns 5% on the first \$3,000 of sales each month and 8% on every dollar above \$3,000. Find the commission on \$7,500 of sales. How much in sales is needed to earn \$700?

Problem 19 Splitting the Check (hard)

Four friends share a dinner bill of \$80.00 before tax. The tax is 7.5% and they tip 18% of the pre-tax bill. How much does each person pay if they split the total equally?

Problem 20 Markup Then Sale (hard)

A bike shop buys a bike for \$140 and marks it up 60%. During a holiday sale the price drops 25%. Find the sale price, the profit and the profit as a percent of the shop's cost.



Markup, then markdown.