

Grade 7 · Percent Problems: Tax, Tips, Markups and Discounts · Worksheet

Common Core 7.RP.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

These 20 problems practice standard 7.RP.A.3: solving multistep percent problems with sales tax, tips, markups, discounts, commission, fees and simple interest. The first problems use one percent of an amount, and later problems combine two steps or work backward to an original price.

Problems 15 to 20 are multistep word problems. Write each percent as a decimal, follow the order of the story, round money to the nearest cent, and label every answer with dollars.

Grade 7 Common Core: 7.RP.A.3

Problem 1: Sales tax

Maya buys a backpack at the school store. Find the sales tax and the total cost.

School Store	
Backpack	\$28.00
Sales tax rate	7%

A receipt for a backpack with 7% sales tax.

Problem 2: Sales tax on a bike lock

Jamal buys a bike lock for \$24.50. The sales tax rate is 6%. Find the sales tax and the total cost.

Bike lock	
\$24.50	
6% sales tax	

Problem 3: Tip at a restaurant

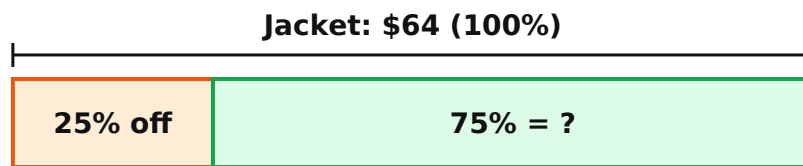
Liam's family dinner bill is \$36.00 before the tip. They leave a 20% tip. Find the tip and the total amount paid.

Problem 4: Tip on a pizza order

Sofia's family orders pizza for dinner, and the bill is \$42.00 before the tip. They leave a 15% tip. Find the tip and the total amount paid.

Problem 5: Discount

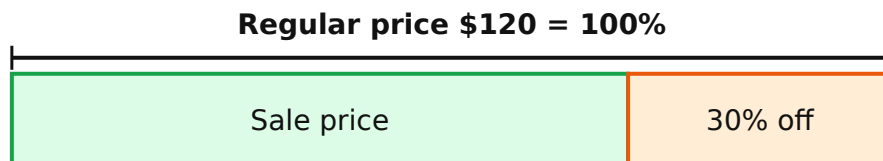
A jacket regularly costs \$64 and is on sale for 25% off. Find the amount of the discount and the sale price.



A bar model of the jacket price.

Problem 6: Sale price of a tent

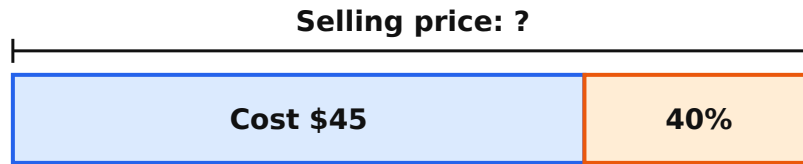
A camping tent regularly costs \$120 and is on sale for 30% off. Find the amount of the discount and the sale price.



A bar model of the tent price.

Problem 7: Markup

A skate shop pays \$45 for a skateboard and marks it up 40%. Find the markup in dollars and the selling price.



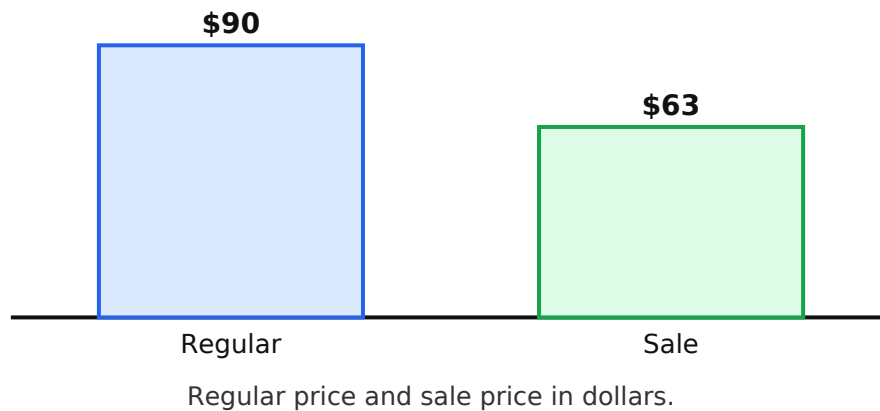
A bar model of cost plus markup.

Problem 8: Markup on a bike

A bike shop pays \$80 for a bicycle helmet-and-lock set and marks it up 35%. Find the markup in dollars and the selling price.

Problem 9: Percent off

A jacket regularly costs \$90 and is on sale for \$63. Find the percent discount.



Problem 10: Commission

Priya earns a 5% commission on everything she sells at a furniture store.

- How much does she earn on \$3,200 of sales?
- How much must she sell to earn \$200 in commission?

Problem 11: Pay with commission

Ethan works at an electronics store. He earns a base pay of \$400 each week plus a 3% commission on his sales. Last week he sold \$8,500 worth of products. Find the commission and his total pay for the week.

Problem 12: Simple interest

Diego deposits \$1,200 in an account that pays 2.5% simple interest per year. Find the interest after 3 years and the balance at that time.

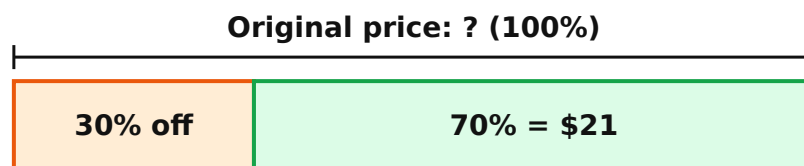
Problem 13: Time to earn interest

Aisha deposits \$1,500 in an account that pays 3% simple interest per year.

- Find the interest earned in one year.
- Find the number of years needed to earn \$180 in interest.

Problem 14: Finding the original price

A shirt is on sale for 30% off. The sale price is \$21. Find the original price.



A bar model of the sale price.

Problem 15: Price before tax

Mei paid a total of \$53.50 for a pair of sneakers, and this total includes 7% sales tax. Find the price before tax and the amount of tax.

Problem 16: Discount then tax

Ethan buys sneakers priced at \$85. They are 20% off, and then 8% sales tax is added to the sale price. Find the total cost.

Problem 17: Sale plus coupon

A backpack costs \$50. It is on sale for 20% off, and then Diego uses a coupon for an extra 10% off the sale price.

- Find the price after the sale.
- Find the price after the coupon.
- Find the total savings as a percent of the original \$50.



The coupon applies to the sale price.

Problem 18: Ticket fees

Aisha buys 4 concert tickets online at \$45 each. The site adds a service fee of 12% of the ticket total, plus a \$5.00 processing fee for the order. Find the total.

Ticket Order	
4 tickets at \$45.00	\$180.00
Service fee (12%)	?
Processing fee	\$5.00
Total	?

An order summary with a percent fee and a flat fee.

Problem 19: Group dinner bill

Four friends share a dinner. The food costs \$64.00. Sales tax is 8% of the food cost, and the group leaves a 20% tip on the food cost. They split the total equally.

- Find the tax and the tip.
- Find the total amount paid.
- Find the amount each friend pays.

Problem 20: Comparing savings plans

Mei compares two savings plans that both pay simple interest for 5 years. Plan A: \$2,000 at 3% per year. Plan B: \$1,800 at 4% per year.

- Find the interest each plan earns.
- Find the final balance of each plan.
- Which plan earns more interest? Which plan ends with more money?