LESSON MAKER PRO

Percent Price Lab

Find discounts, extra costs, and earnings.

GRADE 7 · 7.AT.A.4

7.AT.A.4 "Solve ratio and percent problems in context (e.g., simple interest, tax, markups and markdowns, tips, commissions, fees, percent increase or decrease, and percent error) by applying proportional reasoning."

NAME _____ DATE _____

START WITH THE ORIGINAL

A percent tells you how many parts out of 100. To find a percent of an amount, multiply the amount by the percent written as a fraction or decimal. Subtract a discount from the original amount, or add a tax, tip, or markup.

WORKED EXAMPLE

A $64 jacket is 25% off. What is the sale price?

1. 25% = 25/100 = 1/4.
2. Discount: $64 × 1/4 = $16.
3. Sale price: $64 - $16 = $48.

Answer: $48

PRACTICE 6 problems

1 A $30 shirt is 20% off. What is the sale price?

ANSWER _____

2 Headphones cost $50 before an 8% sales tax. How much is the tax?

ANSWER _____

3 A meal costs $18. You leave a 10% tip. What is the total cost?

ANSWER _____

4 A store marks up a $70 backpack by 5%. What is the new price?

ANSWER _____

5 You earn a 3% commission on $120 in sales. How much do you earn?

ANSWER _____

6 You deposit $200 in an account that pays 2% simple interest per year. How much is in the account after one year?

ANSWER _____

APPLY IT Show your work

1 A video game costs $28. It is discounted by 30%, then 5% sales tax is added to the discounted price. How much do you pay?

WORK SPACE

ANSWER _____

2 You sell $90 worth of keychains at a school fair. You earn a 20% commission on your sales, but you must pay a $3 booth fee. How much money do you keep?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A skate shop takes 20% off a helmet. The sale price is $52. What was the original price? Show how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Percent Price Lab

GRADE 7 · 7.AT.A.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A $30 shirt is 20% off. What is the sale price?	**$24**
2	Headphones cost $50 before an 8% sales tax. How much is the tax?	**$4**
3	A meal costs $18. You leave a 10% tip. What is the total cost?	**$19.80**
4	A store marks up a $70 backpack by 5%. What is the new price?	**$73.50**
5	You earn a 3% commission on $120 in sales. How much do you earn?	**$3.60**
6	You deposit $200 in an account that pays 2% simple interest per year. How much is in the account after one year?	**$204**

PART 2 · APPLY IT

1. **$20.58** The discount is $8.40, leaving $19.60. Tax is $0.98, so the total is $20.58.
2. **$15** The commission is 20% of $90, or $18. Subtract the $3 fee to get $15.

CHALLENGE

$65; the sale price is 80% of the original, and $52 / 0.80 = $65.

Accept equivalent calculations using fractions, decimals, or proportions. For the challenge, accept any correct method that uses the fact that $52 is 80% of the original price.