LESSON MAKER PRO

Smart Money Rates

Use proportional reasoning with prices, discounts, and business earnings.

HIGH SCHOOL · MA.912.FL.1.2

MA.912.FL.1.2 "Extend previous knowledge of ratios and proportional relationships to solve real-world problems involving money and business."

NAME _____ DATE _____

PRICE CHANGES WITH PERCENTS

Write a percent as a decimal before you multiply. For a discount, multiply the original price by the discount decimal to find the amount removed, then subtract that amount from the original price to find the sale price. For tax or markup, find the change amount and add it to the original price.

WORKED EXAMPLE

A jacket has an original price of $84 and is 15% off. What is the sale price?

1. Write 15% as 0.15.
2. Find the discount: 84 * 0.15 = 12.60.
3. Subtract the discount: 84 - 12.60 = 71.40.

Answer: $71.40

PRACTICE 6 problems

1 A music store sells 3 digital albums for $9. At the same rate, how much do 7 digital albums cost?

ANSWER _____

2 A game controller costs $48 before tax. Sales tax is 7.5%. What is the total cost after tax?

ANSWER _____

3 A $65 pair of headphones is discounted by 30%. What is the sale price?

ANSWER _____

4 A small business pays $36 wholesale for a backpack and uses a 25% markup. What selling price should the business use?

ANSWER _____

5 A student earns a 6% commission on $850 in sales at a part-time job. How much commission does the student earn?

ANSWER _____

6 Plan A costs $12 for 4 months. Plan B costs $18 for 6 months. How much does each plan cost per month, and are the unit rates equal?

ANSWER _____

APPLY IT Show your work

1 A student runs a custom button business. Materials for 24 buttons cost $18. The student makes 40 buttons and sells each one for $1.25. If material cost stays proportional, what is the profit from selling all 40 buttons?

WORK SPACE

ANSWER _____

2 The school band sells 30 online tickets for $14 each. The ticket website keeps 10% of the total ticket sales. How much money does the band receive?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A campus apparel seller pays $9 for each hat. The seller marks each hat up 50%, then offers customers a 20% discount from the marked price. If 32 hats are sold, what is the profit on the hats sold? Show how the markup and discount affect the selling price.

WORK SPACE AND ANSWER

ANSWER KEY

Smart Money Rates

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A music store sells 3 digital albums for $9. At the same rate, how much do 7 digital albums cost?	**$21.00**
2	A game controller costs $48 before tax. Sales tax is 7.5%. What is the total cost after tax?	**$51.60**
3	A $65 pair of headphones is discounted by 30%. What is the sale price?	**$45.50**
4	A small business pays $36 wholesale for a backpack and uses a 25% markup. What selling price should the business use?	**$45.00**
5	A student earns a 6% commission on $850 in sales at a part-time job. How much commission does the student earn?	**$51.00**
6	Plan A costs $12 for 4 months. Plan B costs $18 for 6 months. How much does each plan cost per month, and are the unit rates equal?	**$3 per month for each plan; the unit rates are equal.**

PART 2 · APPLY IT

1. **$20.00** The materials cost $18 / 24 = $0.75 per button, so materials for 40 buttons cost $30. Revenue is 40 * $1.25 = $50, and profit is $50 - $30 = $20.
2. **$378.00** Total sales are 30 * $14 = $420. The website keeps $42, so the band receives $420 - $42 = $378.

CHALLENGE

$57.60 profit. The marked price is $9 * 1.50 = $13.50, and the discounted selling price is $13.50 * 0.80 = $10.80 per hat. Revenue is 32 * $10.80 = $345.60, cost is 32 * $9 = $288.00, so profit is $57.60.

Accept equivalent proportional methods, including unit rates, proportions, or percent multipliers. Require money answers to include dollars and cents when appropriate.