LESSON MAKER PRO

Rates Around Montana

Use unit rates and percentages to solve community problems.

GRADE 6 · MT.6.RP.3

MT.6.RP.3 "Use ratio and rate reasoning to solve proportional problems in context about unit rates, percentages (as a rate per 100), and/or measurement units using tables or equations..."

NAME _____ DATE _____

FIND THE RATE

A unit rate tells how much goes with one unit. Divide to find the unit rate, then multiply to find a new amount. A percent is a rate per 100, so you can find a percent by rewriting a ratio as an amount out of 100.

WORKED EXAMPLE

Seven notebooks cost $35. At the same price, how much do 3 notebooks cost?

1. $35 / 7 = $5 per notebook
2. 3 × $5 = $15

Answer: $15

PRACTICE 6 problems

1 A print shop charges $16 for 2 posters. What is the cost per poster?

ANSWER _____

2 A pack of 6 blank cards costs $12. At the same price, how much do 13 cards cost?

ANSWER _____

3 Use the table to find the cost of 14 bookmarks. Each bookmark has the same price.

BOOKMARK COSTS

Bookmarks	Cost
6	$12
14	?

ANSWER _____

4 A runner travels 20 miles in 2 hours at a steady speed. How far does the runner travel in 6 hours?

ANSWER _____

5 At a community book fair, 25 out of 100 books are graphic novels. What percent of the books are graphic novels?

ANSWER _____

6 Of 20 buttons, 16 are blue. What percent of the buttons are blue?

ANSWER _____

APPLY IT Show your work

1 At a Montana library event featuring books by Indigenous authors, a class can buy 6 books for $54. The class has $90 to spend. How many books can it buy at the same price?

WORK SPACE

ANSWER _____

2 At a youth basketball tournament hosted by a Montana tribal community, organizers print 120 programs. They give 36 programs to volunteers. What percent of the programs go to volunteers?

WORK SPACE

ANSWER _____

CHALLENGE One step up

For a school event featuring books by Montana Indigenous authors, organizers buy 60 bookmarks for $48 and sell each bookmark for $2. What percent of the sales money was spent on bookmarks? Show how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Rates Around Montana

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A print shop charges $16 for 2 posters. What is the cost per poster?	**$8 per poster**
2	A pack of 6 blank cards costs $12. At the same price, how much do 13 cards cost?	**$26**
3	Use the table to find the cost of 14 bookmarks. Each bookmark has the same price.	**$28**
4	A runner travels 20 miles in 2 hours at a steady speed. How far does the runner travel in 6 hours?	**60 miles**
5	At a community book fair, 25 out of 100 books are graphic novels. What percent of the books are graphic novels?	**25%**
6	Of 20 buttons, 16 are blue. What percent of the buttons are blue?	**80%**

PART 2 · APPLY IT

1. **10 books** $54 / 6 = $9 per book. Then $90 / $9 = 10 books.
2. **30%** 36/120 = 3/10 = 30/100, so 30% of the programs go to volunteers.

CHALLENGE

Selling 60 bookmarks at $2 each brings in $120. The $48 cost is 48/120 = 40/100 of the sales money, so 40% was spent on bookmarks.

Accept equivalent division, multiplication, or ratio methods. For the challenge, the percent must be based on the $120 in sales, not the $48 cost.