

Grade 6

Session 3, Item 3

Item ID: 935143

Five students participate in a fund-raiser, earning money for each mile they ride on bicycles. The table shows the amount of money three of the students earn for each mile they ride.

Money Earned per Mile

Student	Money Earned per Mile
Jason	\$12.95
Kimberly	\$14.05
Luis	\$12.75
Marta	?
Nicky	?

Each student in the fund-raiser rides a whole number of miles. The list shows the five students in order from least to greatest based on the number of miles they ride. No two students rode the same number of miles.

Student List

Kimberly, Nicky, Marta, Luis, Jason

Use the **Money Earned Per Mile** table to answer the question.

Jason rides 40 miles. He works through the steps shown to calculate the amount of money he earns.

- Step 1: First, I rounded \$12.95 to the nearest dollar, which is \$13.
- Step 2: Then, I multiplied 4×13 , which is 52.
- Step 3: Then, I multiplied 10×52 , which is 520.
- Step 4: Then, since there are 20 nickels in \$1, I know there are 40 nickels in \$2.
- Step 5: Finally, I subtracted \$2 from \$520 to get \$518.

Explain why Jason determined the number of nickels in \$2 in Step 4 to help him calculate the total amount of money he earns.

EQ

0 / 1000

Maximum Number of Points: 1

Alignment: 6.NS.B.3

- Compute with non-negative multi-digit numbers, and find common factors and multiples.
 - Demonstrate fluency with addition, subtraction, multiplication and division of decimals.

SAMPLE CORRECT EXPLANATION:

- When Jason rounded from \$12.95 to \$13.00, he rounded up by a nickel. That means his estimate will be over by a nickel per mile. Since he rode 40 miles, he needs to know the value of 40 nickels.

1 Point

- Student provides a valid mathematical explanation referencing both the amount by which Jason rounded and the number of miles Jason rode.

0 Points

- Blank
–OR–
- Student does not provide a valid mathematical explanation referencing both the amount by which Jason rounded and the number of miles Jason rode.

Grade 6
Session 3, Item 6
Item ID: 935146

Five students participate in a fund-raiser, earning money for each mile they ride on bicycles. The table shows the amount of money three of the students earn for each mile they ride.

Money Earned per Mile

Student	Money Earned per Mile
Jason	\$12.95
Kimberly	\$14.05
Luis	\$12.75
Marta	?
Nicky	?

Each student in the fund-raiser rides a whole number of miles. The list shows the five students in order from least to greatest based on the number of miles they ride. No two students rode the same number of miles.

Student List

Kimberly, Nicky, Marta, Luis, Jason

Use the **Money Earned per Mile** table and the **Student List** to answer the question.

Luis earns between \$300 and \$310. Nicky rode 22 miles. Marta earns \$391. How much money does Marta earn per mile? Explain how you determined your answer.

EQ

0 / 1000

Maximum Number of Points: 2

Alignment: 6.NS.B.3

- Compute with non-negative multi-digit numbers, and find common factors and multiples.
 - Demonstrate fluency with addition, subtraction, multiplication and division of decimals.

CORRECT ANSWER:

- \$17

SAMPLE CORRECT EXPLANATION:

- Luis earns \$12.75 per mile. I divided \$300 by \$12.75 to get 23.52, approximately, so Luis rode at least that many miles. If he rode 24 miles, he'd earn \$306, and if he rode 25 miles, he'd earn \$318.75, which is more than \$310. So, Luis rode 24 miles. Nicky rode 22 miles. Marta rode more than Nicky and less than Luis, so she rode 23 miles. Then, I divided \$391 by 23 to get \$17, so Marta earns \$17 per mile.

2 Points

- Student determines the correct answer and provides a valid mathematical explanation.

1 Point

- Student determines the correct answer but does not provide a valid mathematical explanation.
–OR–
- Student does not determine the correct answer but does provide a valid mathematical explanation.

0 Points

- Blank
–OR–
- Student does not determine the correct answer nor provides a valid mathematical explanation.