Multiply Decimals

Another Look!

Marco hiked 2.5 miles in an hour. If he continues at the same speed, how far will he hike in 3.25 hours?

$$2.5 \times 3.25 =$$

$$= (25 \times 325) \times (0.1 \times 0.01)$$

$$= 8,125 \times 0.001$$

$$= 8.125$$

Marco will hike 8.125 miles in 3.25 hours.

Remember, one tenth times one hundredth equals one thousandth.



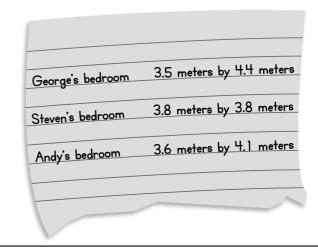
1. To find 0.6×0.35 , multiply the whole numbers <u>6</u> and <u>35</u> by the decimals <u>0.1</u> and <u>0.01</u>. The product is <u>0.21</u>.

In **2–16**, write each product.

6.
$$0.07 \times 1.2$$

- 17. Helen uses 0.12 kilogram of nuts in each batch of granola that she makes. If she makes 2.5 batches, how many kilograms of nuts will she use?0.3 kg
- 18. The weight of an empty pickup truck is 2.1 times the weight of an empty car. If the empty car weighs 1.8 tons, how many tons does the pickup weigh carrying a 0.5-ton load? 4.28 tons
- **19. Make Sense and Persevere** Mr. Chaplin measured his sons' rectangular bedrooms for new carpeting. Whose bedroom has the greatest area?

George's bedroom



20. Higher Order Thinking Hank has a board 1.75 meters long. He used 0.8 meter to build the walls of a birdhouse. He used 0.4 of what is left for the floor. He needs 0.6 meter for the roof. Does he have enough wood for the roof? Explain.

No. After building the walls, the amount he had left was 1.75-0.8=0.95 meter. For the floor, he used $0.4\times0.95=0.38$ meter. Now, the amount he has left is 0.95-0.38=0.57 meter. Since 0.57 meter <0.6 meter, he does not have enough wood.

21. The times for five sprinters in a 50-meter dash were 6.72 seconds, 6.4 seconds, 6.08 seconds, 7.03 seconds, and 6.75 seconds. Write these times from fastest to slowest.

6.08 seconds, 6.4 seconds, 6.72 seconds, 6.75 seconds, 7.03 seconds

Assessment Practice

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- **22.** Which expression is equivalent to 1.18×0.6 ?
 - (1.18 \times 0.01) \times (0.6 \times 0.1)
 - **B** $(118 \times 0.01) \times (6 \times 0.1)$
 - \bigcirc (118 × 100) × (6 × 10)
 - ① $(118 \times 0.1) \times (6 \times 0.1)$

- **23.** Which expression is equivalent to 0.4×8.7 ?

 - (B) $(4 \times 87) \times (100 \times 10)$
 - © $(4 \times 87) \times (0.01 \times 0.01)$