LESSON MAKER PRO

Decimal Moves

Multiply and divide using whole-number strategies.

GRADE 6 · 6.NOS.B.3.b

6.NOS.B.3.b "Generalize whole number strategies to multiply and divide decimals."

NAME _____ DATE _____

THE BIG IDEA

To multiply decimals, multiply as if the factors were whole numbers. Then place the decimal point so the product has the same total number of decimal places as the factors. To divide by a decimal, multiply both numbers by the same power of 10 to make the divisor a whole number, then divide.

WORKED EXAMPLE

Find 1.4 × 0.3.

1. Multiply the digits as whole numbers: 14 × 3 = 42.
2. The factors have two decimal places in all.
3. Place the decimal point two places from the right: 0.42.

Answer: 0.42

PRACTICE 6 problems

1 Find 3.4 × 1.2.

ANSWER _____

2 Find 0.26 × 0.5.

ANSWER _____

3 Find 6.25 × 0.8.

ANSWER _____

4 Find 8.4 ÷ 0.7.

ANSWER _____

5 Find 5.76 ÷ 1.2.

ANSWER _____

6 Find 0.945 ÷ 0.09.

ANSWER _____

APPLY IT Show your work

1 A cyclist completes 6 laps of a 1.75 km loop. How far does the cyclist travel?

WORK SPACE

ANSWER _____

2 A robotics club buys 3.2 meters of LED light strip for $14.40. What is the cost per meter?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A club has $20.00 to buy keychains that cost $1.35 each. What is the greatest number of keychains the club can buy, and how much money will remain? Show how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Moves

GRADE 6 · 6.NOS.B.3.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 3.4 × 1.2.	**4.08**
2	Find 0.26 × 0.5.	**0.13**
3	Find 6.25 × 0.8.	**5**
4	Find 8.4 ÷ 0.7.	**12**
5	Find 5.76 ÷ 1.2.	**4.8**
6	Find 0.945 ÷ 0.09.	**10.5**

PART 2 · APPLY IT

1. **10.5 km** Multiply 1.75 × 6 to get 10.5 km.
2. **$4.50 per meter** Divide $14.40 by 3.2 meters. Since 144 ÷ 32 = 4.5, the cost is $4.50 per meter.

CHALLENGE

14 keychains, with $1.10 remaining. Fourteen cost $18.90, while 15 would cost $20.25, which is more than the club has.

Accept equivalent decimal forms, such as 5.00 for 5. For the challenge, look for a check that 14 keychains are affordable but 15 are not.