LESSON MAKER PRO

Number Moves

Multiply and divide decimals and fractions.

GRADE 6 · 6.N.4.3

6.N.4.3 "Multiply and divide fractions and decimals using efficient and generalizable procedures."

NAME _____ DATE _____

CHOOSE YOUR MOVE

To divide by a decimal, move the decimal point the same number of places in both numbers until the divisor is a whole number. To multiply decimals, multiply as whole numbers, then use the total number of decimal places in the factors to place the decimal point. To multiply fractions, multiply the numerators and denominators; to divide fractions, multiply by the reciprocal of the second fraction.

WORKED EXAMPLE

Find 4.68 ÷ 0.6.

1. Move both decimal points one place right: 46.8 ÷ 6.
2. Divide: 46.8 ÷ 6 = 7.8.

Answer: 7.8

PRACTICE 6 problems

1 Find 1.25 × 0.4.

ANSWER _____

2 Find 3/4 × 2/5.

ANSWER _____

3 Find 6.3 ÷ 0.9.

ANSWER _____

4 Find 7/8 ÷ 1/4.

ANSWER _____

5 Find 2.4 × 0.15.

ANSWER _____

6 Find 1 1/2 × 2/3.

ANSWER _____

APPLY IT Show your work

1 A short game video takes 3/4 GB of storage. Your tablet has 2 1/4 GB free. How many videos of that size can you save?

WORK SPACE

ANSWER _____

2 Sticker packs cost $1.20 each. You have $7.50. How many packs can you buy, and how much money will you have left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student claims 3.6 ÷ 0.09 = 0.4. Explain the mistake and find the correct quotient.

WORK SPACE AND ANSWER

ANSWER KEY # Number Moves

GRADE 6 · 6.N.4.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1.25 × 0.4.	**0.5**
2	Find 3/4 × 2/5.	**3/10**
3	Find 6.3 ÷ 0.9.	**7**
4	Find 7/8 ÷ 1/4.	**7/2**
5	Find 2.4 × 0.15.	**0.36**
6	Find 1 1/2 × 2/3.	**1**

PART 2 · APPLY IT

1. **3 videos** Divide the free space by the size of one video: 2 1/4 ÷ 3/4 = 9/4 × 4/3 = 3.
2. **6 packs and $0.30 left** Six packs cost 6 × $1.20 = $7.20, while seven packs cost more than $7.50. Subtract $7.20 from $7.50 to get $0.30 left.

CHALLENGE

The student did not move both decimal points the same number of places. Moving both two places right gives 360 ÷ 9 = 40.

Accept 1/2 for 0.5 and 3 1/2 for 7/2. For the challenge, accept any explanation that correctly shows an equivalent division or explains why the quotient is 40.