LESSON MAKER PRO

# Tiny Share Math

*Divide unit fractions into equal shares.*

**GRADE 5 · NY-5.NF.7.a**

**NY-5.NF.7.a** "Interpret division of a unit fraction by a non-zero whole number, and compute such quotients."

NAME _____ DATE _____

## THE BIG IDEA

When you divide a unit fraction by a non-zero whole number, you split that fraction into equal shares. Multiply the denominator by the whole number. If the divisor is greater than 1, the quotient is smaller than the original fraction. If the divisor is 1, the quotient is unchanged: for example, 1/3 ÷ 1 =1/3.

## WORKED EXAMPLE

Find 1/3 ÷ 4.

1. Write 4 as 4/1.
2. Change division to multiplication by the reciprocal: 1/3 × 1/4.
3. Multiply the denominators: 3 × 4 = 12.
4. So, 1/3 ÷ 4 = 1/12.

**Answer: 1/12**

## PRACTICE 6 problems

**1** Find 1/2 ÷ 7.

**ANSWER** _____

**2** Find 1/5 ÷ 5.

**ANSWER** _____

**3** Find 1/6 ÷ 7.

**ANSWER** _____

**4** Find 1/7 ÷ 8.

**ANSWER** _____

**5** Find 1/8 ÷ 6.

**ANSWER** _____

**6** Find 1/9 ÷ 5.

**ANSWER** _____

## APPLY IT Show your work

**1** Maya has 1/10 of a gallon of paint for a mini mural. She pours the paint equally into 5 small containers. What fraction of a gallon of paint is in each container?

WORK SPACE

**ANSWER** _____

**2** A game club has 1/11 of an hour left for a bonus round. The time is shared equally between 2 teams. What fraction of an hour does each team get?

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

Without multiplying fractions, explain why 1/13 ÷ 2 is less than 1/13. Then find the quotient.

WORK SPACE AND ANSWER

**ANSWER KEY** # Tiny Share Math



## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | Find 1/2 ÷ 7. | **1/14** |
| 2 | Find 1/5 ÷ 5. | **1/25** |
| 3 | Find 1/6 ÷ 7. | **1/42** |
| 4 | Find 1/7 ÷ 8. | **1/56** |
| 5 | Find 1/8 ÷ 6. | **1/48** |
| 6 | Find 1/9 ÷ 5. | **1/45** |

## PART 2 · APPLY IT

1. **1/50 gallon** Compute 1/10 ÷ 5 by multiplying the denominator by 5. Each container has 1/50 gallon.
2. **1/22 hour** Compute 1/11 ÷ 2 by multiplying the denominator by 2. Each team gets 1/22 hour.

## CHALLENGE

**Splitting 1/13 into 2 equal shares makes each share smaller than 1/13. 1/13 ÷ 2 = 1/26.**

Accept equivalent fraction notation when correct, although all quotients here are already in simplest form. For the challenge, accept any clear explanation that equal sharing makes each piece smaller.