LESSON MAKER PRO

# Fraction Group Power

*Use equal groups to multiply fractions.*

**GRADE 5 · 5.CE.2.d**

**5.CE.2.d** "Solve single-step contextual problems involving multiplication of a whole number, limited to 12 or less, and a proper fraction (e.g., 9 × 2/3, 8 × 3/4), with models. The denominator will be a factor of the whole number and answers should be expressed in simplest form.*"

NAME _____ DATE _____

## BUILD WHOLE GROUPS

Multiplication tells how much is in equal groups. Use the denominator to group the fractions into sets. One complete set makes the numerator number of wholes, then count the sets.

## WORKED EXAMPLE

Find 12 x 5/6.

1. Model: [5/6] [5/6] [5/6] [5/6] [5/6] [5/6] makes 5 wholes.
2. Make a second matching group of 6 copies.
3. 5 wholes + 5 wholes = 10 wholes.

**Answer: 10**

## PRACTICE 6 problems

**1** Find 2 x 1/2. Model: [1/2] [1/2].

**ANSWER** _____

**2** Find 3 x 2/3. Model: [2/3] [2/3] [2/3].

**ANSWER** _____

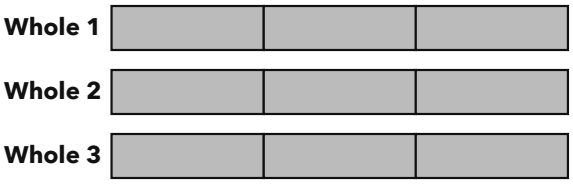
**3** Find 4 x 3/4. Model: [3/4] [3/4] [3/4] [3/4].

**ANSWER** _____

**4** Find 8 x 1/4. Model: [1/4] [1/4] [1/4] [1/4] | [1/4] [1/4] [1/4] [1/4].

**ANSWER** _____

**5** Find 9 × 1/3. Model: [1/3] [1/3] [1/3] | [1/3] [1/3] [1/3] | [1/3] [1/3] [1/3]. Each bar below is one whole divided into thirds. Explain how the nine shaded thirds form whole groups.




**ANSWER** _____

**6** Find 11 x 7/11. Model: [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11].

**ANSWER** _____

## APPLY IT Show your work

**1** Kai practices a new skateboard trick for 4/7 hour on each of 7 days. How many hours does Kai practice altogether?

WORK SPACE

**ANSWER** _____

**2** For an art show, 9 posters each need 4/9 meter of ribbon. How many meters of ribbon are needed?

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

Nora says that 9 x 7/9 equals 7. Explain why she is right by using equal groups.

WORK SPACE AND ANSWER

**ANSWER KEY**

# Fraction Group Power

**GRADE 5 · 5.CE.2.d**

## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | Find 2 x 1/2. Model: [1/2] [1/2]. | **1** |
| 2 | Find 3 x 2/3. Model: [2/3] [2/3] [2/3]. | **2** |
| 3 | Find 4 x 3/4. Model: [3/4] [3/4] [3/4] [3/4]. | **3** |
| 4 | Find 8 x 1/4. Model: [1/4] [1/4] [1/4] [1/4] \| [1/4] [1/4] [1/4] [1/4]. | **2** |
| 5 | Find 9 × 1/3. Model: [1/3] [1/3] [1/3] \| [1/3] [1/3] [1/3] \| [1/3] [1/3] [1/3]. Each bar below is one whole divided into thirds. Explain how the nine shaded thirds form whole groups. | **3** |
| 6 | Find 11 x 7/11. Model: [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11] [7/11]. | **7** |

## PART 2 · APPLY IT

1. **4 hours** Multiply 7 x 4/7. Seven copies of 4/7 make 4 whole hours.
2. **4 meters** Multiply 9 x 4/9. Nine copies of 4/9 make 4 whole meters.

## CHALLENGE

**Nine copies of 7/9 equal 7 wholes because nine copies of 1/9 make 1 whole.**

Accept a correct equal-groups or fraction-strip model. Answers should be written as whole numbers in simplest form.