LESSON MAKER PRO

Fraction Group Power

Multiply fractions by whole numbers.

GRADE 4 · 4.NF.B.4b

CCSS.Math.Content.4.NF.B.4b "Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5)..."

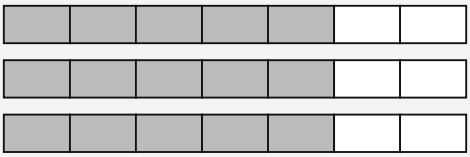
NAME _____ DATE _____

COUNT EQUAL PIECES

To multiply a fraction by a whole number, multiply the numerator by the whole number. Keep the denominator the same because the pieces stay the same size. For example, 5 x 4/17 = 20/17.

WORKED EXAMPLE

Use the fraction bars. Write the product as a multiple of 1/7, then find 3 x the fraction shown.



1. Each bar shows 5 pieces of 1/7.
2. There are 3 groups of 5 pieces.
3. 3 x 5/7 = 15 x 1/7 = 15/7.

Answer: 15/7

PRACTICE 4 problems

1 Find 6 x 1/8.

ANSWER _____

2 Write as a multiple of 1/11. Then find 4 x 2/11.

ANSWER _____

3 Find 9 x 1/12.

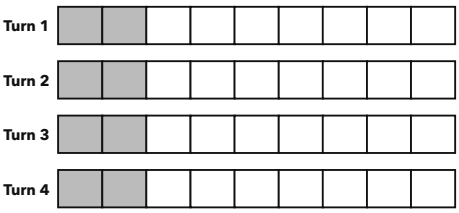
ANSWER _____

4 Find 10 x 4/13.

ANSWER _____

APPLY IT Show your work

1 A robot moves the shaded part of a track on each of four turns. The bars show the turns. What fraction of one track does it move altogether?



ANSWER _____

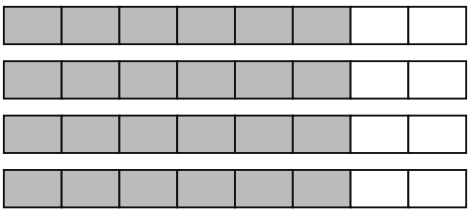
2 A club packs 6 snack bags. Each bag holds 1/11 kilogram of trail mix. How many kilograms of trail mix are packed?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Kai says the total shaded amount is 10/8 because 4 + 6 = 10. Use the bars to explain Kai's error and find the total shaded amount.



WORK SPACE AND ANSWER

ANSWER KEY

Fraction Group Power

GRADE 4 · 4.NF.B.4b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 6 x 1/8.	**6/8**
2	Write as a multiple of 1/11. Then find 4 x 2/11.	**8 x 1/11 = 8/11**
3	Find 9 x 1/12.	**9/12**
4	Find 10 x 4/13.	**40/13**

PART 2 · APPLY IT

1. **8/9** There are 4 groups of 2 ninths. Multiply 4 x 2/9 to get 8/9.
2. **6/11 kilogram** Multiply 6 x 1/11. This equals 6/11 kilogram.

CHALLENGE

Kai added the number of groups and the shaded pieces. There are 4 x 6 = 24 pieces of 1/8, so the total is 24/8.

Accept equivalent simplified fractions, such as 3/4 for 6/8 and 1 7/13 for 20/13. For the challenge, accept a clear explanation that 4 groups of 6 eighths make 24 eighths.