LESSON MAKER PRO

Fraction Product Check

Multiply, then check if your answer makes sense.

GRADE 5 · 5.NOS.D.11

5.NOS.D.11 "Apply and extend previous understandings of multiplication to multiply a whole number by a fraction (c/d × b). Estimate products by reasoning about benchmark numbers and assess reasonableness of answers (e.g...."

NAME _____ DATE _____

MULTIPLY AND COMPARE

To find c/d of a whole number, multiply the whole number by c and divide by d. If the whole number divides evenly by d, you can divide first. For a positive whole number, a fraction less than 1 gives a smaller product, while a fraction greater than 1 gives a larger product.

WORKED EXAMPLE

Find 4/7 × 21.

1. Divide first: 21 ÷ 7 = 3.
2. Multiply: 3 × 4 = 12.
3. Check: 4/7 is less than 1, and 12 is less than 21.

Answer: 12

PRACTICE 6 problems

1 Find 1/2 × 14.

ANSWER _____

2 Find 2/3 × 18.

ANSWER _____

3 Find 5/6 × 24.

ANSWER _____

4 Find 9/8 × 16.

ANSWER _____

5 Find 3/2 × 10.

ANSWER _____

6 Is 6/5 × 15 greater than or less than 15? Then find the exact product.

ANSWER _____

APPLY IT Show your work

1 At the skate park, Eli spends 2/3 of a 27-minute visit practicing one trick. How many minutes does Eli practice that trick?

WORK SPACE

ANSWER _____

2 A special round in a video game earns 5/3 as many points as a regular round. A regular round earns 18 points. How many points does the special round earn?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says, "Multiplying a whole number by 5/2 always gives a larger result." Is the student correct? Use two different whole numbers to explain.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Product Check

GRADE 5 · 5.NOS.D.11

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1/2 × 14.	**7**
2	Find 2/3 × 18.	**12**
3	Find 5/6 × 24.	**20**
4	Find 9/8 × 16.	**18**
5	Find 3/2 × 10.	**15**
6	Is 6/5 × 15 greater than or less than 15? Then find the exact product.	**Greater than 15; 18**

PART 2 · APPLY IT

1. **18 minutes** 27 ÷ 3 = 9, and 9 × 2 = 18.
2. **30 points** 18 ÷ 3 = 6, and 6 × 5 = 30.

CHALLENGE

No. For example, 5/2 × 6 = 15, which is greater than 6, but 5/2 × 0 = 0, which is not greater than 0.

Accept equivalent multiplication methods and correct explanations that compare the fraction with 1. For the challenge, the explanation must include 0 as a counterexample.