LESSON MAKER PRO

Fraction Match Lab

Make equal fractions by changing the number of equal parts.

GRADE 4 · 4.NF.A.1

CCSS.Math.Content.4.NF.A.1 "Explain why a fraction a / b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same..."

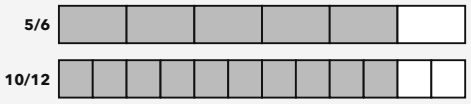
NAME _____ DATE _____

SAME AMOUNT, NEW PARTS

Fractions are equivalent when they name the same amount of a whole. Multiply the numerator and denominator by the same whole number to make more equal, smaller parts without changing the amount shaded.

WORKED EXAMPLE

Show why 5/6 is equivalent to 10/12.

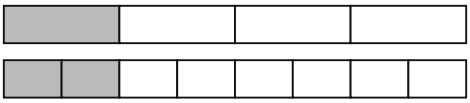


1. Start with 5 shaded parts out of 6 equal parts.
2. Split each sixth into 2 equal smaller parts.
3. Now there are 10 shaded parts out of 12 equal parts.
4. Multiply both numbers by 2: 5/6 = 10/12.

Answer: 5/6 = 10/12

PRACTICE 6 problems

1 Use the fraction bars. Complete the equivalent fraction: 1/4 = ___/8.



ANSWER _____

2 Multiply the numerator and denominator of 2/7 by 4. Write the equivalent fraction.

ANSWER _____

3 Complete the equivalent fraction: 3/5 = ___/15.

ANSWER _____

4 Are 3/8 and 9/24 equivalent? Explain how you know.

ANSWER _____

5 Complete the equivalent fraction: ___/18 = 4/6.

ANSWER _____

6 Which fraction is equivalent to 4/11? Circle one: 8/22, 8/21, 5/11.

ANSWER _____

APPLY IT Show your work

1 Mina filled 2 of 8 boxes on her reading tracker. Write the fraction of boxes she filled with a denominator of 4.

WORK SPACE

ANSWER _____

2 At a game design club, 6 of 16 students chose the character-art station. Write the fraction of students at that station with a denominator of 8.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game level meter is 3/4 full. The designer redraws the same meter with 12 equal spaces. How many spaces should be full? Write the equivalent fraction and explain why the amount is the same.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Match Lab

GRADE 4 · 4.NF.A.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the fraction bars. Complete the equivalent fraction: 1/4 = ___/8.	**2/8**
2	Multiply the numerator and denominator of 2/7 by 4. Write the equivalent fraction.	**8/28**
3	Complete the equivalent fraction: 3/5 = ___/15.	**9/15**
4	Are 3/8 and 9/24 equivalent? Explain how you know.	**Yes. Multiply the numerator and denominator of 3/8 by 3 to get 9/24.**
5	Complete the equivalent fraction: ___/18 = 4/6.	**12/18**
6	Which fraction is equivalent to 4/11? Circle one: 8/22, 8/21, 5/11.	**8/22**

PART 2 · APPLY IT

1. **1/4** 2/8 is equivalent to 1/4 because both the numerator and denominator can be divided by 2.
2. **3/8** Divide both parts of 6/16 by 2 to get 3/8.

CHALLENGE

9 spaces should be full. 3/4 = 9/12 because each fourth is split into 3 equal smaller spaces, so both the numerator and denominator are multiplied by 3.

Accept any equivalent fraction that is mathematically equal when a problem does not require a stated denominator. For written explanations, accept language showing that every original part was split into the same number of equal smaller parts.