LESSON MAKER PRO

Same Size Fractions

Use bars and number lines to find equal fractions.

GRADE 3 · 3.NF.3a

3.NF.3a "Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. Recognize that comparisons are valid only when the two fractions refer to the same whole."

NAME _____ DATE _____

THE BIG IDEA

Fractions are equal when they show the same amount of the same whole. Equal fractions land at the same point on a number line. Before you compare shaded amounts, check that the wholes are the same size.

WORKED EXAMPLE

Do the shaded bars show equal fractions?

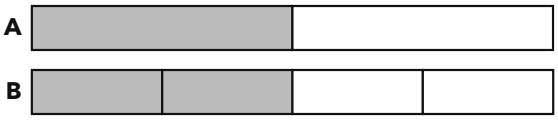


1. Both bars show wholes of the same size.
2. The first bar has 5 of 7 parts shaded.
3. Split each part in half. Now 10 of 14 parts are shaded.
4. The shaded amounts match: 5/7 = 10/14.

Answer: Yes, 5/7 and 10/14 are equal.

PRACTICE 6 problems

1 Do bars A and B show the same shaded amount? Explain.



ANSWER _____

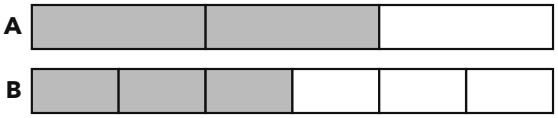
2 Write the position of point A in fourths and in eighths.



ANSWER _____

_____

3 Which bar has more shaded, A or B? Write the fraction shown by each bar.



ANSWER _____

_____

4 Fill in the blank: 1/4 = ___/8.

ANSWER _____

5 Is 3/9 equal to 1/3? Explain.

ANSWER _____

_____

6 Fill in the blank: 2/3 = ___/12.

ANSWER _____

APPLY IT Show your work

1 At a school fair, Jo and Ren get snack bars of the same size. Jo eats 2/6 of one bar. Ren eats 1/3 of the other. Did they eat the same amount? Explain.

WORK SPACE

ANSWER _____

2 Ada reads 1/2 of a 4-page comic. Ben reads 2/4 of an 8-page comic. Did they read the same number of pages? Explain.

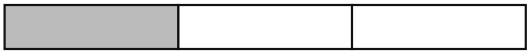
WORK SPACE

ANSWER _____

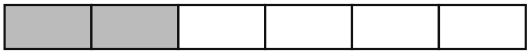
CHALLENGE One step up

Which three bars show the same shaded amount? Explain why the other bar is different.

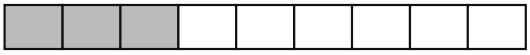
A



B



C



D



WORK SPACE AND ANSWER

ANSWER KEY

Same Size Fractions

GRADE 3 · 3.NF.3a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Do bars A and B show the same shaded amount? Explain.	**Yes. A shows 1/2 and B shows 2/4. Both shade the same amount.**
2	Write the position of point A in fourths and in eighths.	**3/4 and 6/8**
3	Which bar has more shaded, A or B? Write the fraction shown by each bar.	**A has more shaded. A shows 2/3, and B shows 3/6.**
4	Fill in the blank: 1/4 = ___/8.	**2**
5	Is 3/9 equal to 1/3? Explain.	**Yes. If each third is split into 3 equal parts, 1/3 becomes 3/9.**
6	Fill in the blank: 2/3 = ___/12.	**8**

PART 2 · APPLY IT

1. **Yes. They ate the same amount because 2/6 = 1/3 and their bars were the same size.** Split each third into 2 equal parts to see that 1/3 = 2/6. The wholes are the same size.
2. **No. Ada read 2 pages, and Ben read 4 pages. The fractions are equal, but the comics have different numbers of pages.** Half of 4 pages is 2 pages. Two fourths of 8 pages is 4 pages.

CHALLENGE

A, B, and C show the same amount: 1/3 = 2/6 = 3/9. D shows 4/8, or 1/2, which is more than 1/3.

Accept correct explanations based on matching shaded lengths or splitting equal parts. For the comic problem, students should note that equal fractions of different wholes need not give the same number of pages.