

Same Size Fractions

Find fractions that name the same amount.

GRADE 3 • NY-3.NF.3.b

NY-3.NF.3.b "Recognize and generate equivalent fractions. Explain why the fractions are equivalent."

NAME _____

DATE _____

EQUAL AMOUNTS

Equivalent fractions name the same amount, even when the numbers look different. Multiply the numerator and denominator by the same whole number to make an equivalent fraction.

WORKED EXAMPLE

Write a fraction equivalent to $\frac{7}{9}$ by multiplying both numbers by 3.

1. Start with $\frac{7}{9}$.
2. Multiply the numerator: $7 \times 3 = 21$.
3. Multiply the denominator: $9 \times 3 = 27$.
4. Write $\frac{21}{27}$.

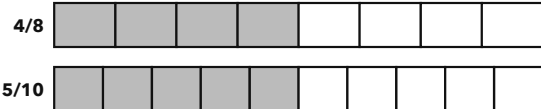
Answer: $\frac{7}{9} = \frac{21}{27}$

PRACTICE 6 problems

- 1** Complete the equivalent fraction: $\frac{1}{5} = \frac{\quad}{10}$

ANSWER _____

- 2** Use the fraction bars. Are $\frac{4}{8}$ and $\frac{5}{10}$ equivalent? Write yes or no.



ANSWER _____

- 3** Complete the equivalent fraction: $\frac{5}{6} = \frac{\quad}{12}$

ANSWER _____

- 4** Complete the equivalent fraction: $\frac{2}{4} = \frac{\quad}{8}$

ANSWER _____

- 5** Circle all fractions equivalent to $\frac{1}{6}$: $\frac{2}{12}$, $\frac{4}{24}$, $\frac{5}{12}$

ANSWER _____

- 6** Explain why $\frac{8}{10}$ and $\frac{4}{5}$ are equivalent.

ANSWER _____

APPLY IT Show your work

- 1** A game board has 8 equal spaces, and 4 spaces have coins. Another equal game board has 10 equal spaces, and 5 spaces have coins. Do the coin spaces show equivalent fractions? Explain.

WORK SPACE

ANSWER _____

- 2** A music app shows that $\frac{5}{6}$ of a playlist is downloaded. On another screen, the same amount is shown as $\frac{10}{12}$. Are the fractions equivalent? Explain why.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Write the two fractions, other than $\frac{5}{8}$, that are equivalent to $\frac{5}{8}$ and have denominators less than 25. Explain how you found them.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete the equivalent fraction: $1/5 = \underline{\quad}/10$	2/10
2	Use the fraction bars. Are $4/8$ and $5/10$ equivalent? Write yes or no.	Yes
3	Complete the equivalent fraction: $5/6 = \underline{\quad}/12$	10/12
4	Complete the equivalent fraction: $2/4 = \underline{\quad}/8$	4/8
5	Circle all fractions equivalent to $1/6$: $2/12$, $4/24$, $5/12$	2/12 and 4/24
6	Explain why $8/10$ and $4/5$ are equivalent.	$8/10 = 4/5$ because both the numerator and denominator of $4/5$ were multiplied by 2.

PART 2 • APPLY IT

- Yes. $4/8$ and $5/10$ are equivalent fractions.** Both fractions equal one-half of a whole board. $4/8$ can be simplified by dividing the numerator and denominator by 2 to make $2/4$, then by 2 again to make $1/2$. $5/10$ also simplifies to $1/2$.
- Yes. $5/6 = 10/12$ because both the numerator and denominator were multiplied by 2.** Multiply 5 by 2 to get 10, and multiply 6 by 2 to get 12. Since both numbers were multiplied by the same number, the fractions are equivalent.

CHALLENGE

$10/16$ and $15/24$. Multiply the numerator and denominator of $5/8$ by 2 to get $10/16$. Multiply both by 3 to get $15/24$.

Accept any correct explanation that states or clearly shows that the numerator and denominator are multiplied or divided by the same number. For the challenge, accept equivalent wording that identifies $10/16$ and $15/24$.