

Fraction Decimal Match

Connect fractions, mixed numbers, and decimals.

GRADE 4 • 4.NS.5.b

4.NS.5.b "Identify and model equivalent relationships between fractions (proper or improper) and/or mixed numbers and decimals, using halves, fourths, fifths, tenths, and hundredths.*"

NAME _____

DATE _____

SAME AMOUNT, NEW FORM

A fraction can name the same amount as a decimal. Rename the fraction with tenths or hundredths, then write the number of tenths or hundredths as a decimal.

WORKED EXAMPLE

Write $\frac{3}{5}$ as a decimal.

1. Rename the fraction with tenths: $\frac{3}{5} = \frac{6}{10}$.
2. $\frac{6}{10}$ means 6 tenths.
3. 6 tenths is 0.6.

Answer: 0.6

PRACTICE 6 problems

1 Write $\frac{7}{10}$ as a decimal.

ANSWER _____

2 Write 0.25 as a fraction in simplest form.

ANSWER _____

3 Write $1\frac{1}{2}$ as a decimal.

ANSWER _____

4 Write $\frac{9}{5}$ as a mixed number and as a decimal.

ANSWER _____

5 Write $2\frac{3}{4}$ as a decimal.

ANSWER _____

6 Write 0.04 as a fraction with denominator 100.

ANSWER _____

APPLY IT Show your work

- 1** The video game club meets for $1\frac{3}{4}$ hours. Write the meeting time as a decimal number of hours.

WORK SPACE

ANSWER _____

- 2** Leo jogs 0.8 mile after school. What fraction of a mile does he jog? Write the fraction in simplest form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Complete the equation, then explain how you know the forms are equal: $2\frac{1}{4} = \frac{\quad}{4} = \frac{\quad}{100} = \quad$.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write $7/10$ as a decimal.	0.7
2	Write 0.25 as a fraction in simplest form.	$1/4$
3	Write $1\ 1/2$ as a decimal.	1.5
4	Write $9/5$ as a mixed number and as a decimal.	$1\ 4/5$; 1.8
5	Write $2\ 3/4$ as a decimal.	2.75
6	Write 0.04 as a fraction with denominator 100.	$4/100$

PART 2 • APPLY IT

- 1.75 hours** $3/4$ is the same as $75/100$, or 0.75. Add 1 and 0.75 to get 1.75 hours.
- $4/5$ mile** 0.8 is $8/10$. Simplify $8/10$ by dividing the numerator and denominator by 2 to get $4/5$.

CHALLENGE

$2\ 1/4 = 9/4 = 225/100 = 2.25$. I wrote the mixed number as 9 fourths, then multiplied the numerator and denominator by 25 to make hundredths.

Accept equivalent fraction forms when the prompt does not require simplest form or a stated denominator. For the challenge, accept a correct explanation that shows $9/4$ is renamed as $225/100$ and then written as 2.25.