

Fraction Decimal Detectives

Connect fractions and decimals with place value.

GRADE 4 • MA.4.FR.1

MA.4.FR.1 "Develop an understanding of the relationship between different fractions and the relationship between fractions and decimals."

NAME _____

DATE _____

FRACTION-DECIMAL LINKS

Fractions with denominators of 10 and 100 match tenths and hundredths in decimals. To change another fraction to a decimal, make an equivalent fraction with a denominator of 10 or 100 when you can.

WORKED EXAMPLE

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

1. Make an equivalent fraction with a denominator of 10.
2. $\frac{3}{5} = \frac{6}{10}$ because $3 \times 2 = 6$ and $5 \times 2 = 10$.
3. $\frac{6}{10}$ means 6 tenths, or 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 Which fraction is equal to 0.4? A. $\frac{4}{10}$ B. $\frac{4}{100}$ C. $\frac{40}{10}$

ANSWER _____

4 Write $\frac{9}{100}$ as a decimal.

ANSWER _____

5 Compare using $<$, $>$, or $=$: $\frac{3}{4}$ ____ 0.7

ANSWER _____

6 Write 0.50 as a fraction in simplest form.

ANSWER _____

APPLY IT Show your work

- 1** In a dance game, 8 out of 10 moves were scored as perfect. What decimal part of the moves were scored as perfect?

WORK SPACE

ANSWER _____

- 2** At an arcade, Jalen earned 45 out of 100 possible energy points. Write this amount as a decimal and as a fraction in simplest form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Put these numbers in order from least to greatest: 0.19, $\frac{1}{5}$, $\frac{3}{10}$. Explain your reasoning.

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	Which fraction is equal to 0.4? A. $4/10$ B. $4/100$ C. $40/10$	A. $4/10$
4	Write $9/100$ as a decimal.	0.09
5	Compare using $<$, $>$, or $=$: $3/4$ ____ 0.7	$>$
6	Write 0.50 as a fraction in simplest form.	$1/2$

PART 2 • APPLY IT

1. **0.8** Write $8/10$ as 8 tenths. Eight tenths is 0.8.
2. **0.45 and $9/20$** Forty-five hundredths is 0.45. Simplify $45/100$ by dividing the numerator and denominator by 5 to get $9/20$.

CHALLENGE

0.19, $1/5$, $3/10$. Since $1/5 = 0.20$ and $3/10 = 0.30$, $0.19 < 0.20 < 0.30$.

Accept equivalent fractions unless a problem specifically asks for simplest form. Accept decimals with extra ending zeros, such as 0.70 for 0.7.