

# Fraction Decimal Detectives

*Find matching names for the same amount.*

**GRADE 4 • 4.NS.5**

**4.NS.5** "The student will reason about the relationship between fractions and decimals (limited to halves, fourths, fifths, tenths, and hundredths) to identify and represent equivalencies..."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## MATCH THE AMOUNT

Fractions with denominators of 2, 4, 5, 10, and 100 can be written as decimals. Halves can be renamed as tenths or hundredths, fourths can be renamed as hundredths, and fifths can be renamed as tenths or hundredths. The first digit after the decimal is tenths, and the second digit is hundredths.

## WORKED EXAMPLE

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

1. Keep the whole number 3.
2. Rename  $\frac{2}{5}$  as  $\frac{4}{10}$ .
3. Write  $\frac{4}{10}$  as 0.4.
4. Combine 3 and 0.4.

**Answer: 3.4**

## PRACTICE 6 problems

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

**ANSWER** \_\_\_\_\_

**2** Write 0.75 as a fraction.

**ANSWER** \_\_\_\_\_

**3** Write  $\frac{9}{10}$  as a decimal.

**ANSWER** \_\_\_\_\_

**4** Write 1.02 as a mixed number using hundredths.

**ANSWER** \_\_\_\_\_

**5** Write  $\frac{7}{4}$  as a decimal.

**ANSWER** \_\_\_\_\_

**6** A strip has 5 equal parts. 3 parts are shaded. Write the fraction and decimal that name the shaded part.

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** Kai's game level shows  $1\frac{1}{4}$  hours of play. His parent tracker shows 1.25 hours. Do both displays show the same amount of time?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** Lena has  $\$3/4$ . A digital song costs \$0.65. Does Lena have enough money? How much money remains?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

Maya says that  $2.50 = 2\frac{50}{100} = 2\frac{1}{2}$ . Is Maya correct? Explain your reasoning.

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## PART 1 • PRACTICE

| # | PROBLEM                                                                                                  | ANSWER                                  |
|---|----------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1 | Write $\frac{1}{2}$ as a decimal.                                                                        | <b>0.5</b>                              |
| 2 | Write 0.75 as a fraction.                                                                                | <b><math>\frac{3}{4}</math></b>         |
| 3 | Write $\frac{9}{10}$ as a decimal.                                                                       | <b>0.9</b>                              |
| 4 | Write 1.02 as a mixed number using hundredths.                                                           | <b><math>1 \frac{2}{100}</math></b>     |
| 5 | Write $\frac{7}{4}$ as a decimal.                                                                        | <b>1.75</b>                             |
| 6 | A strip has 5 equal parts. 3 parts are shaded. Write the fraction and decimal that name the shaded part. | <b><math>\frac{3}{5}</math> and 0.6</b> |

## PART 2 • APPLY IT

1. **Yes,  $1 \frac{1}{4} = 1.25$ .** Rename  $\frac{1}{4}$  as  $\frac{25}{100}$ , or 0.25. Then  $1 \frac{1}{4}$  is 1.25.
2. **Yes. \$0.10 remains.** Rename  $\frac{3}{4}$  as \$0.75. Subtract \$0.65 from \$0.75 to get \$0.10.

## CHALLENGE

**Yes.  $\frac{50}{100} = \frac{1}{2}$ , so  $2.50 = 2 \frac{1}{2}$ .**

Accept equivalent fraction forms that use the allowed denominators, such as  $\frac{75}{100}$  for 0.75 and  $\frac{102}{100}$  for 1.02.  
Accept decimals with or without a leading zero, such as .5 or 0.5.