LESSON MAKER PRO

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 2/5 as a decimal.

1. Keep the whole number 3.
2. Rename 2/5 as 4/10.
3. Write 4/10 as 0.4.
4. Combine 3 and 0.4.

Answer: 3.4

PRACTICE 6 problems

1 Write 1/2 as a decimal.

ANSWER _____

2 Write 0.75 as a fraction.

ANSWER _____

3 Write 9/10 as a decimal.

ANSWER _____

4 Write 1.02 as a mixed number using hundredths.

ANSWER _____

5 Write 7/4 as a decimal.

ANSWER _____

6 The bar is one whole. Write the fraction and decimal naming the shaded amount.

One whole 

ANSWER _____

_____

APPLY IT Show your work

1 Kai played for 1 1/4 hours; a tracker says 1.25 hours. Draw two equal whole-hour bars. Partition them into fourths and shade the time. Label it as a mixed number, an improper fraction, hundredths and a decimal. Do the displays agree?

2 Lena has three fourths of a dollar. A digital song costs $0.65. Does she have enough? How much remains?

WORK SPACE

ANSWER

CHALLENGE One step up

Maya says that 2.50 = 2 50/100 = 2 1/2. Is Maya correct? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Decimal Detectives

GRADE 4 · 4.NS.5

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 1/2 as a decimal.	**0.5**
2	Write 0.75 as a fraction.	**3/4**
3	Write 9/10 as a decimal.	**0.9**
4	Write 1.02 as a mixed number using hundredths.	**1 2/100**
5	Write 7/4 as a decimal.	**1.75**
6	The bar is one whole. Write the fraction and decimal naming the shaded amount.	**3/5 and 0.6**

PART 2 · APPLY IT

1. **One whole plus a quarter; 1 1/4 = 5/4 = 125/100 = 1.25. The two displays agree.** Check equal whole-hour bars and five shaded fourths. Each fourth is 25/100, linking all four forms.
2. **Yes. $0.10 remains.** Rename 3/4 as $0.75. Subtract $0.65 from $0.75 to get $0.10.

CHALLENGE

Yes. 50/100 = 1/2, so 2.50 = 2 1/2.

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