LESSON MAKER PRO

Decimal Fraction Match

Connect thirds, eighths, and hundredths to decimals.

GRADE 5 · 5.NS.1.c

5.NS.1.c "Identify equivalent relationships between decimals and fractions with denominators that are thirds, eighths, and factors of 100 in their equivalent decimal form, with and without models.*"

NAME _____ DATE _____

MATCH THE FORMS

To write a fraction with denominator 8 as a decimal, divide the numerator by 8. A non-whole-number fraction with denominator 3 has a repeating decimal, as 1/3 = 0.333..., but a fraction that makes a whole number does not repeat. A fraction with denominator 100 shows hundredths, so write its digits in the tenths and hundredths places.

WORKED EXAMPLE

Write 5/8 as a decimal.

1. Write 5.000 and divide by 8.
2. 50 tenths divided by 8 is 6 tenths, with 2 tenths left.
3. 20 hundredths divided by 8 is 2 hundredths, then 40 thousandths divided by 8 is 5 thousandths.

Answer: 0.625

PRACTICE 6 problems

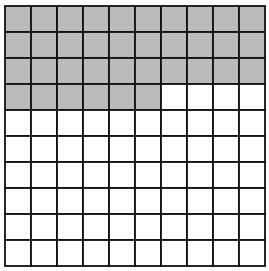
1 Write 1/8 as a decimal.

ANSWER _____

2 Write 7/8 as a decimal.

ANSWER _____

3 This grid is one whole. Write the shaded amount as a decimal and as a fraction with denominator 100.



ANSWER _____

_____

4 Write 0.20 as a fraction with denominator 100.

ANSWER _____

5 Write 2/3 as a decimal.

ANSWER _____

6 Which pair names the same amount? A. 4/8 and 0.5 B. 3/8 and 0.5

ANSWER _____

APPLY IT Show your work

1 Rina has listened to 6/8 of a podcast episode for her fan club. Her app shows progress as a decimal. What decimal should the app show?

WORK SPACE

ANSWER

2 In an online building game, Mateo fills 2/3 of a storage meter. Write the filled amount as a decimal.

WORK SPACE

ANSWER

CHALLENGE One step up

Use decimals to put these amounts in order from least to greatest: 3/8, 2/3, 0.75. Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Fraction Match

GRADE 5 · 5.NS.1.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 1/8 as a decimal.	**0.125**
2	Write 7/8 as a decimal.	**0.875**
3	This grid is one whole. Write the shaded amount as a decimal and as a fraction with denominator 100.	**0.36 and 36/100**
4	Write 0.20 as a fraction with denominator 100.	**20/100**
5	Write 2/3 as a decimal.	**0.666…**
6	Which pair names the same amount? A. 4/8 and 0.5 B. 3/8 and 0.5	**A. 4/8 and 0.5**

PART 2 · APPLY IT

1. **0.75** Divide 6 by 8. The decimal equivalent of 6/8 is 0.75.
2. **0.666…** Divide 2 by 3. The digit 6 repeats, so the decimal is 0.666…

CHALLENGE

3/8 < 2/3 < 0.75, because 3/8 = 0.375 and 2/3 = 0.666…, and 0.375 < 0.666… < 0.75.

Accept trailing zeros in terminating decimals, such as 0.750 for 0.75. For any item that specifically asks for a fraction with denominator 100, require a denominator of 100.