Tenths and Hundredths

Fractions can also be named using decimals.



8 out of 10 sections are shaded.

The fraction is $\frac{8}{10}$.

The word name is eight tenths.

The decimal is 0.8.

Remember: the first place to the right of the decimal is tenths.

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

Sometimes a fraction can be rewritten as an equivalent fraction that has a denominator of 10 or 100.

$$\frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10}$$

$$\frac{4}{10} = 0.4$$

So,
$$\frac{2}{5} = 0.4$$
.

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

First write the whole number.

Write the fraction as an equivalent fraction with a denominator of 10.

Change the fraction to a decimal.

$$\frac{3}{5} = \frac{3 \times 2}{5 \times 2} = \frac{6}{10} = 0.6$$

Write the decimal next to the whole number

3.6

So,
$$3\frac{3}{5} = 3.6$$
.

Write 0.07 as a fraction.

The word name for 0.07 is seven hundredths.

"Seven" is the numerator, and "hundredths" is the denominator.

So,
$$0.07 = \frac{7}{100}$$
.

Remember: the second place to the right of the decimal is hundredths.

Write each fraction or mixed number as a decimal.

1.
$$\frac{1}{5}$$

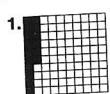
2.
$$\frac{6}{25}$$
 3. $2\frac{3}{4}$ **4.** $3\frac{9}{10}$

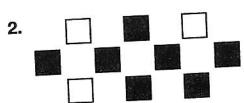
Write each decimal as a fraction or mixed number.

9. Dan says $\frac{3}{5}$ is the same as 3.5. Is he correct? Explain.

Tenths and Hundredths

Write a decimal and fraction for the shaded portion of each model.





Write each decimal as either a fraction or a mixed number.

Write each fraction or mixed number as a decimal.

7.
$$\frac{7}{10}$$
 8. $\frac{33}{100}$ ————

9.
$$7\frac{2}{10}$$
 _____ 10. $3\frac{9}{100}$ _____

Use division to change each fraction to a decimal.

11.
$$\frac{4}{5}$$
 ______ **12.** $\frac{12}{25}$ ______

13.
$$\frac{1}{50}$$
 — 14. $\frac{11}{20}$ — $\frac{11}{20}$

- **15.** When you convert 0.63 to a fraction, which of the following could be the first step of the process?
 - A Since there are 63 hundredths, multiply 0.63 and 100.
 - B Since there are 63 tenths, divide 0.63 by 10.
 - C Since there are 63 tenths, place 63 over 10.
 - D Since there are 63 hundredths, place 63 over 100.

Thousandths

Example 1: Write 0.025 as a fraction.

	TT	Tenths	Hundredths	Thousandths
Ones		lenuis	Tidital	5
^		0	2	

You can use a place-value chart to write a decimal as a fraction. Look at the place-value chart above. The place farthest to the right that contains a digit tells you the denominator of the fraction. In this case, it is thousandths. The number written in the place-value chart tells you the numerator of the fraction. Here, it is 25.

$$0.025 = \frac{25}{1,000}$$

Example 2: Write $\frac{11}{1,000}$ as a decimal.

	 	Ll drodthe	Thousandths
Ones	Tenths	Hundredths	

You can also use a place-value chart to write a fraction as a decimal. The denominator tells you the last decimal place in your number. Here, it is thousandths. The numerator tells you the decimal itself. Write a 1 in the hundredths place and a 1 in the thousandths place. Fill in the other places with a 0.

$$\frac{11}{1,000} = 0.011$$

Write each decimal as a fraction.

1. 0.002

2. 0.037

3. 0.099

Write each fraction as a decimal.

- **4.** $\frac{5}{1,000}$ —
- **5.** $\frac{76}{1,000}$ ——
- **6.** $\frac{40}{1,000}$ —
- 7. Matt reasoned that he can write $\frac{9}{1,000}$ as 0.9. Is he correct? Explain your answer.

Thousandths

Write each decimal as either a fraction or a mixed number.

- 1. 0.007
- **2.** 0.052

0.038

4. 0.259

5. 3.020

6. 4.926

Write each fraction as a decimal.

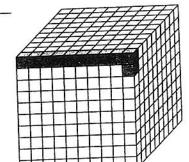
7. $\frac{73}{1,000}$

9. $\frac{854}{1,000}$

11. $\frac{5}{1,000}$

Write the numbers in order from least to greatest.

- **13.** $\frac{5}{1,000}$, 0.003, $\frac{9}{1,000}$
- **14.** 0.021, 0.845, $\frac{99}{1.000}$



- 15. Look at the model at the right. Write a fraction and a decimal that the model represents.
- 16. In Tasha's school, 0.600 of the students participate in a school sport. If there are one thousand students in Tasha's school, how many participate in a school sport?
 - A 6,000
- **B** 600
- C 60
- 17. Explain how knowing that $5 \div 8 = 0.625$ helps you write the decimal for $4\frac{5}{8}$.