

Thousandths

Example 1: Write 0.025 as a fraction.

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

Ones	.	Tenths	Hundredths	Thousandths
0	.	0	2	5

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.

Ones	.	Tenths	Hundredths	Thousandths
	.	0	1	1

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. $0.002 = \frac{2}{1,000}$

2. $0.037 = \frac{37}{1,000}$

3. $0.099 = \frac{99}{1,000}$

Write each fraction as a decimal.

4. $\frac{5}{1,000} = 0.005$

5. $\frac{76}{1,000} = 0.076$

6. $\frac{40}{1,000} = 0.040$

7. **Explain It** Matt reasoned that he can write $\frac{9}{1,000}$ as 0.9. Is he correct? Explain your answer.

No: $\frac{9}{1,000}$ is read as "nine thousandths," which is the decimal 0.009. 0.9 is read as "nine tenths," which is the fraction $\frac{9}{10}$.

Thousandths

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

- | | | | |
|----------|---------------------|----------|----------------------|
| 1. 0.007 | $\frac{7}{1,000}$ | 2. 0.052 | $\frac{52}{1,000}$ |
| 3. 0.038 | $\frac{38}{1,000}$ | 4. 0.259 | $\frac{259}{1,000}$ |
| 5. 3.020 | $3\frac{20}{1,000}$ | 6. 4.926 | $4\frac{926}{1,000}$ |

Write each fraction as a decimal.

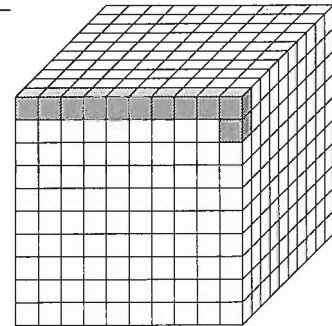
- | | | | |
|------------------------|--------------|-------------------------|--------------|
| 7. $\frac{73}{1,000}$ | <u>0.073</u> | 8. $\frac{593}{1,000}$ | <u>0.593</u> |
| 9. $\frac{854}{1,000}$ | <u>0.854</u> | 10. $\frac{11}{1,000}$ | <u>0.011</u> |
| 11. $\frac{5}{1,000}$ | <u>0.005</u> | 12. $\frac{996}{1,000}$ | <u>0.996</u> |

Write the numbers in order from least to greatest.

- | | |
|--|--|
| 13. $\frac{5}{1,000}$, 0.003, $\frac{9}{1,000}$ | <u>0.003, $\frac{5}{1,000}$, $\frac{9}{1,000}$</u> |
| 14. 0.021, 0.845, $\frac{99}{1,000}$ | <u>0.021, $\frac{99}{1,000}$, 0.845</u> |

15. Look at the model at the right. Write a fraction and a decimal that the model represents.

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



16. **Reasoning** 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 D 6

17. **Explain It** Explain how knowing that $5 \div 8 = 0.625$ helps you write the decimal for $4\frac{5}{8}$.

Sample answer: Knowing that $5 \div 8 = 0.625$ gives the digits to write to the right of the decimal point.

Name _____

Enrichment

9-9

Secret Code

Place the following points on the number line. Label the points with the letters to find the secret message. **Decision Making**



- | | |
|------------------------|------------------------|
| 1. $A = \frac{1}{4}$ | 2. $N = 2\frac{1}{8}$ |
| 3. $E = 3\frac{7}{8}$ | 4. $O = 4\frac{2}{8}$ |
| 5. $E = 3\frac{5}{8}$ | 6. $O = 2\frac{7}{8}$ |
| 7. $E = 4\frac{1}{2}$ | 8. $R = 2\frac{8}{8}$ |
| 9. $F = 2\frac{3}{4}$ | 10. $R = \frac{4}{1}$ |
| 11. $F = 1\frac{7}{8}$ | 12. $S = 1\frac{1}{4}$ |
| 13. $H = \frac{1}{2}$ | 14. $T = \frac{3}{8}$ |
| 15. $I = 1\frac{1}{8}$ | 16. $U = \frac{8}{4}$ |
| 17. $M = \frac{1}{8}$ | 18. $V = 3\frac{3}{4}$ |
| 19. $N = 4\frac{3}{8}$ | 20. $Y = 4\frac{1}{8}$ |