Decimal Notation for Fractions

Apply the skill to decisions and designs

Name _____ **Date** _____ **Score** _____ / 8

QUICK REVIEW

The first decimal place is tenths; the second is hundredths. $\frac{7}{10} = 0.7$, $\frac{7}{100} = 0.07$, and $\frac{43}{100} = 0.43$. A zero in tenths keeps seven hundredths from becoming seven tenths.

Worked example

Write $\frac{36}{100}$ as a decimal and explain its digits.

1. The fraction $\frac{36}{100}$ counts 36 hundredths.

2. Regroup: $36 = 0 \times 100 + 3 \times 10 + 6$ hundredths.

3. Write 0 before the decimal point and 3 in tenths and 6 in hundredths: 0.36.

Answer: 0.36.

Practice Problems

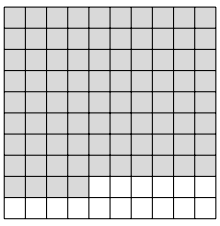
Show your thinking.

1. A ribbon is $\frac{27}{100}$ m long. Write its decimal length.

2. A label reads 0.05 L. Write this as a fraction in hundredths.

3. A path is $\frac{13}{10}$ km. Write its decimal length.

4. Write the decimal for 84 shaded cells of this 100-cell panel.

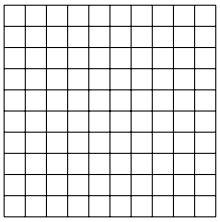


100 equal cells

5. A small bottle holds $\frac{8}{100}$ L but is labeled 0.8 L. Repair the label.

6. Design a decimal label for 1 whole meter and 7 hundredths of a meter.

7. A pattern needs 0.34 of this panel shaded. Give a row-and-cell plan and its fraction.



100 equal cells

8. Explain why a 0.09-m strip is shorter than a $\frac{9}{10}$-m strip, though both use digit 9.

Answer Key

1. 0.27 m.
2. $\frac{5}{100}$ L.
3. 1.3 km.
4. 0.84.
5. 0.08 L.
6. 1.07 m.
7. 3 full rows and 4 cells; $\frac{34}{100}$.
8. $0.09 = \frac{9}{100}$ m, not $\frac{9}{10}$ m.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. The fraction $\frac{27}{100}$ m counts 27 hundredths.
2. Regroup: $27 = 0 \times 100 + 2 \times 10 + 7$ hundredths.
3. Write 0 before the decimal point and 2 in tenths and 7 in hundredths: 0.27 m.

Problem 2

1. The digits of 0.05 show 0 whole, 0 tenths, and 5 hundredths.
2. Count hundredths: $0 \times 100 + 0 \times 10 + 5 = 5$.
3. Write 5 hundredths as $\frac{5}{100}$ L.

Problem 3

1. The fraction $\frac{13}{10}$ km counts 13 tenths.
2. Regroup: $13 = 1 \times 10 + 3$ tenths.
3. Write 1 before the decimal point and 3 in tenths: 1.3 km.

Problem 4

1. Count 8 full rows of 10 plus 4 more cells: $8 \times 10 + 4 = 84$ shaded cells. So the fraction is $\frac{84}{100}$.
2. Regroup: $84 = 0 \times 100 + 8 \times 10 + 4$ hundredths.
3. Write 0 before the decimal point and 8 in tenths and 4 in hundredths: 0.84.

Problem 5

1. The amount is 8 hundredths, not 8 tenths.
2. Place 8 in hundredths and 0 in tenths: 0.08 L.
3. $0.8 = \frac{80}{100}$ L would be ten times too large.

Problem 6

1. One whole meter is $\frac{100}{100}$ m.
2. $\frac{100}{100} + \frac{7}{100} = \frac{107}{100}$ m.
3. The tenths digit is 0, so the decimal is 1.07 m.

Problem 7

1. $0.34 = \frac{34}{100}$.
2. Three full 10-cell rows cover 30 cells.
3. $34 - 30 = 4$ more cells complete the shading.

Problem 8

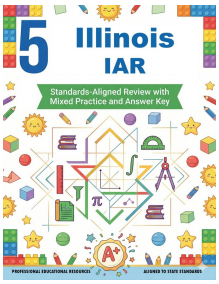
1. The decimal 0.09 counts hundredths.
2. $\frac{9}{10} = \frac{90}{100} = 0.90$ m.
3. $90 - 9 = 81$ hundredths of a meter separate them.

TESTINAR

Keep Building Grade 4 Math Skills

Choose the practice book matched to your state assessment and turn worksheet practice into a complete test-prep plan.

All Grade 4 books



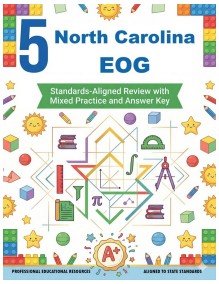
ILLINOIS IAR

5 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook



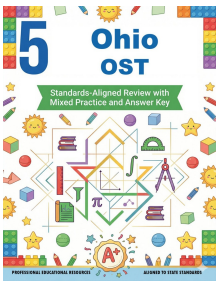
NORTH CAROLINA EOG

5 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook



OHIO OST

5 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook

Need a different state?
Testinar has Grade 4 math practice books for state assessments across the country.

TESTINAR.COM/GRADES/4