

1.3 Place Value of Decimals

Essential Question How do you read, write, and represent decimals through thousandths?

Florida Number and Operations—5.2.A
Mathematical Processes 5.1.D

I will correctly place each decimal place value.

Read the decimal and tell the place value. Click the icon to check if you are correct!

- 5.45 two
six and nine hundred seventy nine thousandths
- 6.979 eight hundred, seven nine and two tenths
- 1.32 five and forty-five hundredths
one and thirty two hundredths
- 3.2 three and two tenths
two and three thousandths
- 2.0
- 45.325 forty five and three hundred twenty-five thousandths
- 879.2
- 2.003

Circle the place value of the underlined digit:

Example: 1 3 . 2 4
tens ones tenth hundredths

- 5 . 5 9 8
ones tenth hundredths thousandths
- 8 . 7 5 6
ones tenth hundredths thousandths
- 1 . 3 4 3
ones tenth hundredths thousandths
- 1 . 9 2 6
ones tenth hundredths thousandths
- 3 . 1 8 3
ones tenth hundredths thousandths
- 3 . 7 9 2
ones tenth hundredths thousandths
- 7 . 1 7 5
ones tenth hundredths thousandths
- 1 . 2 6 8
ones tenth hundredths thousandths
- 7 . 3 4 6
ones tenth hundredths thousandths
- 2 . 9 8 2
ones tenth hundredths thousandths

Try This! Use place value to read and write decimals.

A Standard Form: 2.35 thirty-five hundredths
Word Form: two and 0.3 + 0.05
Expanded Form: 2 + 0.3 + 0.05

B Standard Form: 3.614
Word Form: three and six hundred fourteen thousandths
Expanded Form: 3 + 0.6 + 0.01 + 0.004

Share and Show

1. Complete the place-value chart to find the value of each digit.

| Ones | Tenths | Hundredths | Thousandths |
|--------------|-------------------------|--------------------------|---------------------------|
| 3 | 5 | 2 | 4 |
| 3×1 | $5 \times \frac{1}{10}$ | $2 \times \frac{1}{100}$ | $4 \times \frac{1}{1000}$ |
| 3 | 0.5 | 0.02 | 0.004 |

Value

Write the value of the underlined digit.

2. 0.543 hundredths; 0.04 3. 6.234 thousandths; 0.004

Write the number in two other forms.

5. 0.253 two hundred fifty-three thousandths
0.2 + 0.05 + 0.003

6. 7.632 seven and six hundred thirty-two thousandths
7 + 0.6 + 0.03 + 0.002

Problem Solving

7. **Connect** You can use place-value patterns to rename a decimal. Complete the chart to rename 0.3 using other place values.

0.300

3 tenths

$3 \times \frac{1}{10}$

0.300

_____ hundredths

$\times \frac{1}{100}$

0.300

8. **Write Math** **Explain** how you know that the digit 6 in the numbers 3.675 and 3.756 does not have the same value.

Because one is in the tenths place & the other is in the thousandths place.

Problem Solving World

Use the table for 9–11.

9. What is the value of the digit 7 in New Mexico's average annual rainfall?

hundredths

10. The average annual rainfall in Maine is one and seventy-four thousandths meters per year. Complete the table by writing that amount in standard form.

Average Annual Rainfall (in meters)

| | |
|------------|-------|
| California | 0.564 |
| New Mexico | 0.372 |
| New York | 1.041 |
| Wisconsin | 0.820 |
| Maine | 1.074 |

11. Which of the states has an average annual rainfall with the least number in the thousandths place?

Wisconsin

12. **H.O.T.** **Multi-Step** Dan used a meter stick to measure some seedlings in his garden. One day, a corn stalk was 0.85 m tall. A tomato plant was 0.850 m. A carrot top was 0.085 m. Which plant was shortest?

carrot

13. **H.O.T.** **What's the Error?** Damian wrote the number four and twenty-three thousandths as 4.23. **Describe** and correct his error.

4.023

Write Math

Show Your Work

Math Me Spot

Fill in the bubble completely to show your answer.

14. Although the average turkey sandwich in Turkeyton costs 3.456 dollhorts, the cost of a gourmet turkey sandwich at Sandwich Palace is 5.032 dollhorts. What does the 3 in 5.032 dollhorts represent?

☐ A 3 dollhorts

☐ B 3 tenths of a dollhort

☒ C 3 hundredths of a dollhort

☐ D 4 hundredths of a dollhort

15. **Use Math Language** One meter is equal to about 3.281 feet. What is the word form of this decimal?

☒ A three and twenty-eight hundredths and one thousandth

☐ B three and two hundred eighty-one thousandths

☐ C three and two tenths and eighty-one thousandths

☐ D three point two eighty-one

16. **Multi-Step** Sam had a piece of ribbon 8.469 centimeters long. He cut off exactly one tenth of a centimeter from the ribbon. Then he cut off two hundredths of a centimeter. How long is the ribbon now?

☐ A 8.169 cm

☐ B 8.269 cm

☒ C 8.349 cm

☐ D 8.466 cm

8.469

8.369

8.349

★ TEXAS Test Prep

17. In 24.736, which digit is in the thousandths place?

☐ A 4

☐ B 7

☐ C 3

☒ D 6

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