

Grade 5 Math

Week of 5/25 to 5/29/2020: Understanding Decimal Place Value

Standard: 5.NBT.A.3a

Read and write decimals to the thousandths using base 10 numerals, number names and expanded form.

Objective: Read and write numbers with decimals through the thousandths using standard form, expanded form and number names.

Instructional learning videos to support the review objective:

<https://www.khanacademy.org/math/arithmetic/arith-decimals/arith-review-decimals-intro/v/expanding-out-a-decimal-by-place-value>

1. **Practice Worksheet:** Guided Practice 1-4
2. **Problem of the Day:** (POD): Luisa has a ruler that measures $(5 \times 1/10) + (8 \times 1/100) + (4 \times 1/1000)$ of meter. Write this measurement in decimal form.
3. **Amazing Race: Write down 10 ways you can show the number (pictures, numbers words): 4.25**
4. **NEW!! FUN ONLINE PRACTICE: GO TO ST MATH 30 MINUTES/DAY (ACCESS THROUGH CLEVER).**

Additional Support:

<https://www.ixl.com/math/grade-5/convert-decimals-between-standard-and-expanded-form>

<https://www.youtube.com/watch?v=u2L0qWVePfc>

Additional Online Resources:

- EnVisions (through CLEVER)
- Imagine Math

Another Example

Equivalent decimals name the same amount.

What are two other decimals equivalent to 1.4?

One and four tenths is the same as one and forty hundredths.

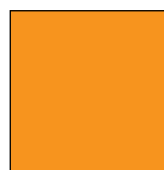
$$1.4 = 1.40$$

One and four tenths is the same as one and four hundred thousandths.

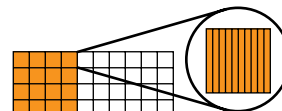
$$1.4 = 1.400$$

So, $1.4 = 1.40 = 1.400$.

1 hundredth is equal to 10 thousandths.



1 whole



4 columns = 4 tenths
40 small squares = 40 hundredths
40 hundredths = 400 thousandths

★ Guided Practice

Do You Understand?

1. **MP.2 Reasoning** The number 3.453 has two 3s. Why does each 3 have a different value?

Do You Know How?

In **2** and **3**, write each number in standard form.

$$2. 4 \times 100 + 7 \times 10 + 6 \times 1 + 6 \times \left(\frac{1}{10}\right) + 3 \times \left(\frac{1}{100}\right) + 7 \times \left(\frac{1}{1,000}\right)$$

3. four and sixty-eight thousandths

Independent Practice

In **4–6**, write each number in standard form.

$$4. (2 \times 1) + \left(6 \times \frac{1}{1,000}\right)$$

$$5. (3 \times 1) + \left(3 \times \frac{1}{10}\right) + \left(9 \times \frac{1}{1,000}\right)$$

6. nine and twenty hundredths

In **7–10**, write two decimals that are equivalent to the given decimal.

$$7. 2.200$$

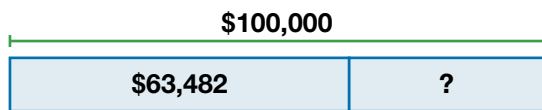
$$8. 8.1$$

$$9. 9.50$$

$$10. 4.200$$

Math Practices and Problem Solving

11. © **MP.4 Model with Math** The annual fundraising goal of a charity is \$100,000. So far \$63,482 has been raised. How much more money is needed to reach the goal?

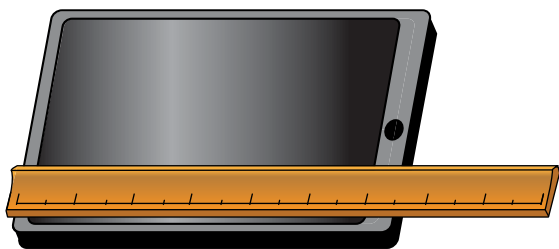


12. Santiago has a rope that measures 205.95 centimeters. Write this number in expanded form.

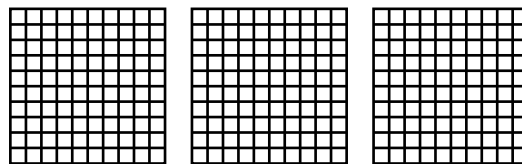
13. © **MP.2 Reasoning** How can you tell that 7.630 and 7.63 are equivalent decimals?

14. © **MP.1 Make Sense and Persevere** In Justin's school, 0.825 of the students participate in a sport. If there are one thousand students in Justin's school, how many participate in a sport?

15. Maria incorrectly placed the decimal point when she wrote 0.65 inch for the width of her tablet computer. What is the correct decimal number for the width?



16. **Higher Order Thinking** Three boys cut out hundredths decimal models. Derrick does not shade any of his models. Ari shades half of one model. Wesley shades two models and one tenth of another model. What decimal represents the amount each boy shades?



© Common Core Assessment

17. Find two decimals that are equivalent to $(4 \times 10) + \left(7 \times \frac{1}{100}\right)$. Write the decimals in the box.

40.7 40.07 4.7 40.070 4.70 40.70

Name _____



Another Example

Equivalent decimals name the same amount.

What are two other decimals equivalent to 1.4?

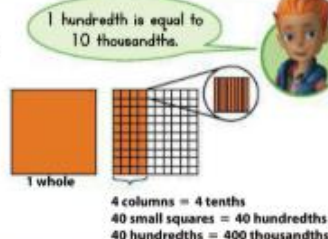
One and four tenths is the same as one and forty hundredths.

$$1.4 = 1.40$$

One and four tenths is the same as one and four hundred thousandths.

$$1.4 = 1.400$$

So, $1.4 = 1.40 = 1.400$.



Guided Practice

Do You Understand?

1. **MP.2 Reasoning** The number 3.453 has two 3s. Why does each 3 have a different value? **The first 3 is in the ones place, the second 3 is in the thousandths place.**

Do You Know How?

In 2 and 3, write each number in standard form.

$$2. 4 \times 100 + 7 \times 10 + 6 \times 1 + 6 \times \left(\frac{1}{10}\right) + 3 \times \left(\frac{1}{100}\right) + 7 \times \left(\frac{1}{1,000}\right)$$

476.637

3. four and sixty-eight thousandths

4.068

Independent Practice

In 4–6, write each number in standard form.

4. $(2 \times 1) + (6 \times \frac{1}{1,000})$ **2.006**

5. $(3 \times 1) + (3 \times \frac{1}{10}) + (9 \times \frac{1}{1,000})$ **3.309**

6. nine and twenty hundredths

9.20 or 9.2

In 7–10, write two decimals that are equivalent to the given decimal.

7. 2.200

2.2, 2.20

8. 8.1

8.10, 8.100

9. 9.50

9.5, 9.500

10. 4.200

4.2, 4.20

*For another example, see Set C on page 49.

Topic 1 | Lesson 1-4

25

Math Practices and Problem Solving

11. **MP.4 Model with Math** The annual fundraising goal of a charity is \$100,000. So far \$63,482 has been raised. How much more money is needed to reach the goal?
- \$36,518**

\$100,000	
\$63,482	?

12. Santiago has a rope that measures 205.95 centimeters. Write this number in expanded form.

$$2 \times 100 + 5 \times 1 + 9 \times \left(\frac{1}{10}\right) + 5 \times \left(\frac{1}{100}\right)$$

13. **MP.2 Reasoning** How can you tell that 7.630 and 7.63 are equivalent decimals?

Sample answer: The seven, six, and three are in the same place. The zero in the thousandths place adds no value to the number.

14. **MP.1 Make Sense and Persevere** In Justin's school, 0.825 of the students participate in a sport. If there are one thousand students in Justin's school, how many participate in a sport?

825 students

15. Maria incorrectly placed the decimal point when she wrote 0.65 inch for the width of her tablet computer. What is the correct decimal number for the width?
- 6.5 inches**



16. **Higher Order Thinking** Three boys cut out hundredths decimal models. Derrick does not shade any of his models, Ari shades half of one model, Wesley shades two models and one tenth of another model. What decimal represents the amount each boy shades?



Derrick 0.0; Ari 0.50; Wesley 2.10

Common Core Assessment

17. Find two decimals that are equivalent to $(4 \times 10) + (7 \times \frac{1}{100})$. Write the decimals in the box.

40.07, 40.070

40.7 40.07 4.7 40.070 4.70 40.70

26

Topic 1 | Lesson 1-4

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