Learning Objective: Students will be able to use a formal rule to divide decimals.

Warm Up

1. $\frac{2}{5} - \frac{1}{20}$

2. $\frac{17}{19} - \frac{14}{19}$

5. $\frac{13}{16} - \frac{13}{16}$

6. $\frac{9}{11} - \frac{2}{11}$

9. $\frac{11}{20} - \frac{1}{2}$

10. $\frac{5}{12} - \frac{1}{3}$

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Warm Up Answers

1. $\frac{2}{5} - \frac{1}{20}$
$= \frac{7}{20}$

2. $\frac{17}{19} - \frac{14}{19}$
$= \frac{3}{19}$

5. $\frac{13}{16} - \frac{13}{16}$
$= 0$

6. $\frac{9}{11} - \frac{2}{11}$
$= \frac{7}{11}$

9. $\frac{11}{20} - \frac{1}{2}$
$= \frac{1}{20}$

10. $\frac{5}{12} - \frac{1}{3}$
$= \frac{1}{12}$

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2.5 Record and Practice Journal

Multiply. Use estimation to check your answer.

1. 0.5×4
   2

2. 3.8×6
   22.8

3. 2.1×11
   23.1

4. 0.8×0.6
   0.48

5. 0.003×0.09
   0.00027

6. 8.91×1.26
   11.2266

7. You earn $7.80 an hour working as a dog sitter. You work 12.5 hours during the weekend. How much money do you make?
   $97.50

8. You use a microscope to look at bacteria that is 0.0034 millimeter long. The microscope magnifies the bacteria 430 times. How long does the bacteria appear to be when you look at it through the microscope?
   1.462 millimeters

Chapter 2 pages 89-91

27. 30.060

29. A fingernail grows about 3 millimeters in 30 days, 9mm in 90 days

32. 0.00021

36. 0.0000032

42. 117.96438

44.0.03822

48. 2.8868 million acres cropland

56. 2.016

59. 36.225

69. various answers.. 4.76ft x 2 ft; 4ft x 2.38ft; 3.808ft x 2.5ft

Learning Objective: Students will be able to use a formal rule to divide decimals.

Lesson 2.6 November 14, 2016

Essential Question:

How can you divide decimals?

Lesson 2.6

November 14, 2016

Lesson Objective:

Students will be able to:

use a formal rule to divide decimals.

Self-Evaluation Scale

Score	Description
4	I can teach other students how to use a formal rule to divide decimals.
3	I can use a formal rule to divide decimals.
2	I recognize, but still need help to use a formal rule to divide decimals.
1	I do not know how to use a formal rule to divide decimals.

Learning Objective: Students will be able to use a formal rule to divide decimals.

Key Idea

Dividing Decimals by Whole Numbers

Words Place the decimal point in the quotient above the decimal point in the dividend. Then divide as you would with whole numbers. Continue until there is no remainder.

Numbers

$$4\overline{)7.32} \quad 1.83$$

Place the decimal point in the quotient above the decimal point in the dividend.

Learning Objective: Students will be able to use a formal rule to divide decimals.

1 Dividing Decimals by Whole Numbers

a. Find 7.6 ÷ 4. Estimate $8 \div 4 = 2$

$$\begin{array}{r} 1.9 \\ 4\overline{)7.6} \\ -\,4 \\ \hline 3\,6 \\ -\,3\,6 \\ \hline 0 \end{array}$$

Place the decimal point in the quotient above the decimal point in the dividend.

∴ So, $7.6 \div 4 = 1.9$. Reasonable? $1.9 \approx 2$ ✓

b. Find 4.38 ÷ 12.

$$\begin{array}{r} 0.365 \\ 12\overline{)4.380} \\ -\,3\,6 \\ \hline 78 \\ -\,72 \\ \hline 60 \\ -\,60 \\ \hline 0 \end{array}$$

Place the decimal point in the quotient above the decimal point in the dividend.

Insert a zero and continue to divide.

∴ So, $4.38 \div 12 = 0.365$. Check $0.365 \times 12 = 4.38$ ✓

Learning Objective: Students will be able to use a formal rule to divide decimals.

Dividend 4.56 ÷ 1.2 divisor

3.8
1.2 | 4.56
36
9 6
9 6
0

Key Idea

Dividing Decimals by Decimals

Words Multiply the divisor *and* the dividend by a power of 10 to make the divisor a whole number. Then place the decimal point in the quotient and divide as you would with whole numbers. Continue until there is no remainder.

Numbers $1.2\overline{)4.56} \longrightarrow 12\overline{)45.6}$

Multiply each number by 10.

Place the decimal point above the decimal point in the dividend 45.6.

Learning Objective: Students will be able to use a formal rule to divide decimals.

2 Dividing Decimals

a. Find 18.2 ÷ 1.4.

$$\begin{array}{r} 13. \\ 14\overline{)182.} \\ -14 \\ \hline 42 \\ -42 \\ \hline 0 \end{array}$$

Multiply each number by 10.

Place the decimal point above the decimal point in the dividend 182.

∴ So, 18.2 ÷ 1.4 = 13. Check 13 × 1.4 = 18.2 ✓

b. Find 0.273 ÷ 0.39.

$$\begin{array}{r} 0.7 \\ 39\overline{)27.3} \\ -27.3 \\ \hline 0 \end{array}$$

Multiply each number by 100.

∴ So, 0.273 ÷ 0.39 = 0.7. Check 0.7 × 0.39 = 0.273 ✓

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3 Inserting Zeros in the Dividend and the Quotient

Divide 2.45 ÷ 0.007.

$$0.007\overline{)2.450} \longrightarrow 7\overline{)2450}$$

$$\begin{array}{r} 350 \\ -21 \\ \hline 35 \\ -35 \\ \hline 00 \end{array}$$

Multiply each number by 1000. Insert a zero in the dividend.

Because 0 ÷ 7 = 0, insert a zero in the quotient.

∴ So, 2.45 ÷ 0.007 = 350.

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OYO!

Divide. Check your answer.

11. $3.8 \div 0.16$

12. $15.6 \div 0.78$

13. $7.2 \div 0.048$

14. $0.18 \div 0.003$

Learning Objective: Students will be able to use a formal rule to divide decimals.

Assignment

Complete problems:

14, 16, 18, 26, 27, 32, 35, 36, 42, 44, 48, 59

on pages 97 - 99 in your Big Ideas Text Book.

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Lesson 2.6 November 14, 2016

Essential Question:

How can you divide decimals?

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Self-Evaluation Scale

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Homework

11/15- 2.6 Practice Big Ideas Record and Practice Journal page 54

11/16 - study for quiz on decimals