

NAME \_\_\_\_\_

**Module 5    Decimal Operations, Exponents, and Powers**  
**Lesson 5    Dividing Decimals**

### Lesson Objectives

- Estimate quotients using rounding and compatible numbers.
- Model division of decimals using diagrams and/or illustrations of manipulatives.
- Develop and use algorithms to divide decimals (hundredths by tenths up to thousandths by thousandths).

### Subtopic 1    Estimating Quotients Using Front-end Estimation, Rounding, and Compatible Numbers

If the \_\_\_\_\_ and \_\_\_\_\_ are multiplied by the same number, the quotient does not change.

**Estimate.**

**1**  $40.3 \div 0.2$

**2**  $54.29 \div 0.11$

### Subtopic 2    Dividing Decimals Using Models

**3** If each amount is shared equally by two people, how much will each person get?

\$1,000

\$100

\$10

\$1

\$0.10

**4** How many quarters are in \$1.30? If necessary, express the remainder as a decimal part of a quarter.

**Subtopic 3****Dividing Decimals by Whole Numbers****Dividing Decimals by Whole Numbers**

- Place the decimal point in the quotient directly \_\_\_\_\_ the decimal point in the dividend.
- Divide as with \_\_\_\_\_ numbers.
- Place zeros to the \_\_\_\_\_ of the decimal in the dividend to complete the division problem.
- Place a zero in the quotient when the dividend is \_\_\_\_\_ the divisor.
- A \_\_\_\_\_ decimal is a decimal with one or more digits repeating without end.
- When a division results in a repeating decimal, the number of repeating digits can be at most \_\_\_\_\_ than the divisor.
- For  $7\overline{)1}$ , the number of repeating digits is at most \_\_\_\_\_.
- A \_\_\_\_\_ decimal is a decimal that has a finite number of decimal places.
- Any rational number can be expressed as a \_\_\_\_\_ or \_\_\_\_\_ decimal.

**Estimate and divide.**

**5**  $25 \div 37$

**6**  $66.08 \div 16$

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**Subtopic 4    Dividing Decimals by Decimals**

**Dividing Decimals by Decimals**

- Multiply the divisor by a power of 10 to make a \_\_\_\_\_ number.
- Multiply the \_\_\_\_\_ by that power of 10.
- Place the decimal point in the quotient directly \_\_\_\_\_ the decimal point in the dividend.
- Divide as with \_\_\_\_\_ numbers.

**Estimate and divide.**

 **7**  $625 \div 12.5$

 **8**  $0.84 \div 0.042$