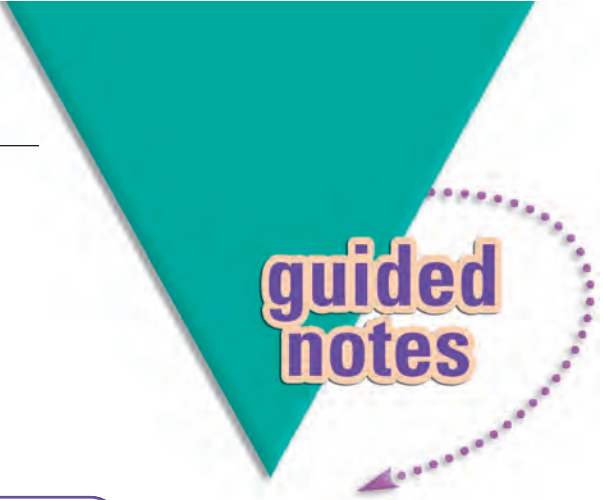


NAME \_\_\_\_\_

**Module 1** Getting Ready for Algebra  
**Lesson 3** Simplifying Expressions with Rational Numbers



guided notes

### Lesson Objectives

- Simplify expressions involving fractions.
- Simplify expressions involving decimals.

When multiplying fractions, multiply the **numerators** \_\_\_\_\_ and then multiply the **denominators** \_\_\_\_\_.

When adding fractions, find a **common** \_\_\_\_\_ denominator or common multiple of the denominators.

1 Evaluate:  $\frac{5}{6} \cdot \frac{3}{10}$   
 $\frac{1}{4}$

2 Evaluate:  $\frac{5}{12} + \frac{1}{18}$   
 $\frac{17}{36}$

3 Evaluate:  $-\frac{2}{3} - \left(-\frac{3}{8}\right)$   
 $-\frac{7}{24}$

To **subtract** \_\_\_\_\_ a number, add its opposite.

To divide by a fraction, **multiply by its reciprocal**.

4 Evaluate:  $\frac{2}{3} \div \frac{2}{7}$   
 $2\frac{1}{3}$

When numbers to be added or subtracted do not have the same number of decimal places, write equivalent decimals so that all of the numbers have the **same** \_\_\_\_\_ number of decimal places.

When **adding** \_\_\_\_\_ or **subtracting** \_\_\_\_\_ decimals, line up the decimal points.

5 Evaluate:  $0.3 + 0.03 + 23.456$

23.786

6 Evaluate:  $9.2 - 0.0054$

9.2946

When **multiplying** decimals make sure that the number of decimal places in the product is the sum of the number of decimal places in the factors.

When **dividing** a decimal by a whole number, the decimal point in the quotient goes directly above the decimal point in the dividend.

When **dividing** a decimal number by another decimal number, move the decimal point in the divisor and the dividend to the right the same number of places necessary to make the divisor a whole number.

Then, divide.

7 Evaluate:  $(0.25)(3.6)$

0.900

8 Evaluate:  $20\overline{)0.3}$

0.015

9 Evaluate:  $0.005\overline{)0.400}$

80