Chapter 1 Review

additive inverses (p. 10)
integers (p. 4)

opposites (p. 4)
rational number (p. 26)

repeating decimal (p. 22)
terminating decimal (p. 21)

Choose the correct term to complete each sentence.

1. When you divide 4 by 7, the quotient is a __?__ .

2. The quotient of two integers where the divisor is never zero is called a __?__ .

3. When you divide 3 by 8, the quotient is a __?__ .

4. Two numbers with the same absolute value and different signs are __?__ .

5. The numbers $-2, 0,$ and 7 are __?__ , but the numbers -2.5 and 3.7 are not.

Lesson 1-1
- To compare and order integers and to find and add opposites.

Opposites are two numbers that are the same distance from 0 on a number line, but in opposite directions. **Integers** are the set of positive whole numbers, their opposites, and zero.

Compare. Use <, =, or >.

6. $-7 \; \blacksquare \; 7$

7. $3 \; \blacksquare \; 3$

8. $9 \; \blacksquare \; -4$

9. $8 \; \blacksquare \; -15$

Lessons 1-2, 1-3
- To add and subtract integers and to solve problems involving integers
- To multiply and divide integers and to solve problems involving integers

The sum of two positive integers is positive. The sum of two negative integers is negative. To find the sum of two integers with different signs, find the absolute value of each integer. Subtract the lesser absolute value from the greater. The sum has the sign of the integer with the greater absolute value. To subtract an integer, add its opposite.

The product or quotient of two integers with the same sign is positive. The product or quotient of two integers with different signs is negative.

Simplify.

10. $14 + (-8)$

11. $17 - (-12)$

12. $-5 \cdot 6$

13. $125 \div (-5)$

Lessons 1-4, 1-5
- To convert between fractions and decimals
- To compare and order rational numbers

To write a fraction as a decimal, you divide the numerator by the denominator. When the division ends with a remainder of 0, the quotient is a **terminating decimal**. When the same block of digits in a decimal repeats without end, the quotient is a **repeating decimal**. A **rational number** can be written as the quotient of two integers, where the denominator is not zero.

Write each fraction as a decimal.

14. $\frac{1}{3}$ ⬜ **15.** $\frac{5}{9}$ ⬜ **16.** $\frac{5}{2}$ ⬜ **17.** $\frac{16}{20}$ ⬜ **18.** $\frac{4}{50}$ ⬜

Order from least to greatest.

19. $\frac{3}{4}, 0.\overline{3}, -\frac{7}{8}$

20. $2.7, -0.3, -\frac{4}{11}$

21. $-\frac{5}{6}, 2.2, -0.5$

Lessons 1-6, 1-7, 1-8
- To add and subtract rational numbers
- To use number lines and properties to understand multiplication of rational numbers and to multiply rational numbers
- To use the rules for dividing integers to divide rational numbers and to solve problems by dividing rational numbers

The rules for signs of rational numbers are the same as for integers.

The sum of two positive rational numbers is positive. The sum of two negative rational numbers is negative. To find the sum of two rational numbers with different signs, find the absolute value of each rational number. Subtract the lesser absolute value from the greater. The sum has the sign of the rational number with the greater absolute value. To subtract a rational number, add its opposite.

The product or quotient of two rational numbers with the same sign is positive.

The product or quotient of two rational numbers with different signs is negative.

Simplify.

22. $-\frac{1}{3} + \left(\frac{2}{3}\right)$ ⬜

23. $2.5 - (-1.3)$ ⬜

24. $\left(-\frac{1}{5}\right)\left(\frac{10}{13}\right)$ ⬜

25. $-1\frac{2}{5} \div \left(\frac{1}{5}\right)$ ⬜

26. $10 \div 2.5$ ⬜

27. $-6.25 \div 5$ ⬜