

Dividing Whole Numbers by Unit Fractions

Grade 5 Math • Section 6.2

Name: _____

Date: _____

Score: _____ / 17

Quick Review and Helpful Hints

Rule: $c \div \frac{1}{b} = c \times b$. Dividing by a unit fraction is the same as multiplying by its denominator.

Think: “How many $\frac{1}{b}$ -sized pieces fit into c ?” $3 \div \frac{1}{4}$: how many fourths in 3 wholes? $3 \times 4 = 12$.

The answer is larger than the starting number.

Example: Find $5 \div \frac{1}{3}$.

How many $\frac{1}{3}$ -sized pieces fit into 5 wholes? $5 \times 3 = 15$. So $5 \div \frac{1}{3} = 15$.

Answer: 15

Practice Problems

Divide.

1. $2 \div \frac{1}{3} =$ _____

6. $8 \div \frac{1}{3} =$ _____

11. $4 \div \frac{1}{10} =$ _____

2. $4 \div \frac{1}{5} =$ _____

7. $5 \div \frac{1}{8} =$ _____

12. $12 \div \frac{1}{3} =$ _____

3. $3 \div \frac{1}{4} =$ _____

8. $10 \div \frac{1}{4} =$ _____

13. $6 \div \frac{1}{8} =$ _____

4. $6 \div \frac{1}{2} =$ _____

9. $9 \div \frac{1}{5} =$ _____

14. $3 \div \frac{1}{6} =$ _____

5. $7 \div \frac{1}{6} =$ _____

10. $1 \div \frac{1}{7} =$ _____

15. $15 \div \frac{1}{2} =$ _____

Word Problems

16. A board is 6 feet long. It is cut into pieces that are each $\frac{1}{4}$ foot long. How many pieces are there? _____

17. A container holds 3 gallons of juice. Cups hold $\frac{1}{8}$ gallon each. How many cups can be filled? _____



Answer Keys

- | | |
|------------------------------------|-------------------------------------|
| 1. <input type="text" value="6"/> | 10. <input type="text" value="7"/> |
| 2. <input type="text" value="20"/> | 11. <input type="text" value="40"/> |
| 3. <input type="text" value="12"/> | 12. <input type="text" value="36"/> |
| 4. <input type="text" value="12"/> | 13. <input type="text" value="48"/> |
| 5. <input type="text" value="42"/> | 14. <input type="text" value="18"/> |
| 6. <input type="text" value="24"/> | 15. <input type="text" value="30"/> |
| 7. <input type="text" value="40"/> | 16. <input type="text" value="24"/> |
| 8. <input type="text" value="40"/> | 17. <input type="text" value="24"/> |
| 9. <input type="text" value="45"/> | |

Step-by-Step Explanations

1. Start with the main idea. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 6. Fractions are easier to combine when the pieces are the same size.
2. Keep the work tidy. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 20. Always simplify at the end so the answer is clean and useful.
3. Look at what the numbers mean. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 12. For mixed numbers, converting to improper fractions can make the arithmetic calmer.
4. Use the setup first. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 12. Fractions are easier to combine when the pieces are the same size.
5. Check the size of the answer. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 42. Always simplify at the end so the answer is clean and useful.
6. Match the operation to the words. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 24. For mixed numbers, converting to improper fractions can make the arithmetic calmer.
7. Write the important values first. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 40. Fractions are easier to combine when the pieces are the same size.
8. Follow the pattern carefully. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 40. Always simplify at the end so the answer is clean and useful.
9. Start with the main idea. For dividing whole numbers by unit fractions, di-

vide by multiplying by the reciprocal, then simplify. The result is 45. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

10. Keep the work tidy. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 7. Fractions are easier to combine when the pieces are the same size.

11. Look at what the numbers mean. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 40. Always simplify at the end so the answer is clean and useful.

12. Use the setup first. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 36. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

13. Check the size of the answer. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 48. Fractions are easier to combine when the pieces are the same size.

14. Match the operation to the words. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 18. Always simplify at the end so the answer is clean and useful.

15. Write the important values first. For dividing whole numbers by unit fractions, divide by multiplying by the reciprocal, then simplify. The result is 30. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

16. Follow the pattern carefully. For dividing whole numbers by unit fractions, each piece is $\frac{1}{4}$ foot, so $6 \div \frac{1}{4} = 6 \times 4 = 24$. Fractions are easier to combine when the pieces are the same size.

17. Start with the main idea. For dividing whole numbers by unit fractions, each cup is $\frac{1}{8}$ gallon, so $3 \div \frac{1}{8} = 3 \times 8 = 24$ cups. Always simplify at the end so the answer is clean and useful.



Want Even More Practice?

Check Out Our Other Montana MAST Test Books!



Montana MAST Grade 5 Math Preparation Bundle

18 full-length practice tests across three books
(5 + 6 + 7)

No repeated questions—maximum practice value!



18 Tests!
3 Books
One Bundle

Important: All our test books contain **unique, completely different tests** from each other! Each book offers fresh practice questions—no repeats!

5 Practice Tests

- ✓ 5 complete practice tests with detailed explanations
- ✓ Perfect foundation for MAST test preparation
- ✓ Builds confidence and test-taking skills
- ✓ High-quality questions aligned with state standards

Start your practice journey!

6 Practice Tests

- ✓ 6 complete practice tests with detailed explanations
- ✓ **Unique tests**—different from the 5 tests book
- ✓ Perfect for more practice after mastering 5 tests
- ✓ Builds even more confidence and test-taking skills
- ✓ Same high-quality questions aligned with standards

Take your practice to the next level!

7 Practice Tests

- ✓ 7 complete practice tests for maximum preparation
- ✓ **Unique tests**—different from 5 and 6 tests books
- ✓ The most comprehensive practice for Grade 5
- ✓ Ideal for students aiming for top scores
- ✓ Extensive practice builds mastery and confidence

Go all the way with comprehensive practice!