

Multiplying Fractions by Whole Numbers

Grade 5 Math • Section 5.2

Name: _____

Date: _____

Score: _____ / 17

Quick Review and Helpful Hints

Rule: $\text{whole number} \times \frac{a}{b} = \frac{\text{whole number} \times a}{b}$.

Think of it as repeated addition: $3 \times \frac{2}{5} = \frac{2}{5} + \frac{2}{5} + \frac{2}{5} = \frac{6}{5} = 1\frac{1}{5}$.

Simplify your final answer (convert improper fractions to mixed numbers).

Example: Find $4 \times \frac{3}{8}$.

Multiply the numerator by the whole number: $\frac{4 \times 3}{8} = \frac{12}{8}$. Simplify: $\frac{12}{8} = \frac{3}{2} = 1\frac{1}{2}$.

Answer: $1\frac{1}{2}$

Practice Problems

Multiply. Write your answer in simplest form.

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

6. $2 \times \frac{4}{9} =$ _____

11. $12 \times \frac{5}{6} =$ _____

2. $5 \times \frac{2}{3} =$ _____

7. $8 \times \frac{3}{10} =$ _____

12. $3 \times \frac{5}{8} =$ _____

3. $6 \times \frac{3}{8} =$ _____

8. $9 \times \frac{2}{5} =$ _____

13. $6 \times \frac{2}{7} =$ _____

4. $4 \times \frac{5}{6} =$ _____

9. $5 \times \frac{7}{12} =$ _____

14. $4 \times \frac{7}{10} =$ _____

5. $7 \times \frac{1}{2} =$ _____

10. $10 \times \frac{3}{4} =$ _____

15. $8 \times \frac{5}{12} =$ _____

Word Problems

16. A painter uses $\frac{3}{4}$ gallon of paint per room. How much paint is needed for 6 rooms?

17. Each serving of trail mix is $\frac{2}{3}$ cup. How many cups are needed for 9 servings?



Answer Keys

1. $\frac{3}{4}$

2. $3\frac{1}{3}$

3. $2\frac{1}{4}$

4. $3\frac{1}{3}$

5. $3\frac{1}{2}$

6. $\frac{8}{9}$

7. $2\frac{2}{5}$

8. $3\frac{3}{5}$

9. $2\frac{11}{12}$

10. $7\frac{1}{2}$

11. 10

12. $1\frac{7}{8}$

13. $1\frac{5}{7}$

14. $2\frac{4}{5}$

15. $3\frac{1}{3}$

16. $4\frac{1}{2}$

17. 6

Step-by-Step Explanations

1. Start with the main idea. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $\frac{3}{4}$. Fractions are easier to combine when the pieces are the same size.

2. Keep the work tidy. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $3\frac{1}{3}$. Always simplify at the end so the answer is clean and useful.

3. Look at what the numbers mean. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $2\frac{1}{4}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

4. Use the setup first. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $3\frac{1}{3}$. Fractions are easier to combine when the pieces are the same size.

5. Check the size of the answer. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $3\frac{1}{2}$. Always simplify at the end so the answer is clean and useful.

6. Match the operation to the words. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $\frac{8}{9}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

7. Write the important values first. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $2\frac{2}{5}$. Fractions are easier to combine when the pieces are the same size.

8. Follow the pattern carefully. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $3\frac{3}{5}$. Always simplify at the end so the answer is clean and useful.

9. Start with the main idea. For multiplying fractions by whole numbers, multiply

the numerators and denominators, then simplify. The result is $2\frac{11}{12}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

10. Keep the work tidy. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $7\frac{1}{2}$. Fractions are easier to combine when the pieces are the same size.

11. Look at what the numbers mean. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is 10. Always simplify at the end so the answer is clean and useful.

12. Use the setup first. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $1\frac{7}{8}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

13. Check the size of the answer. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $1\frac{5}{7}$. Fractions are easier to combine when the pieces are the same size.

14. Match the operation to the words. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $2\frac{4}{5}$. Always simplify at the end so the answer is clean and useful.

15. Write the important values first. For multiplying fractions by whole numbers, multiply the numerators and denominators, then simplify. The result is $3\frac{1}{3}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

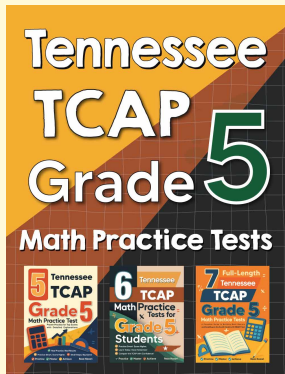
16. Follow the pattern carefully. For multiplying fractions by whole numbers, $6 \times \frac{3}{4} = \frac{18}{4} = 4\frac{1}{2}$ gallons. Fractions are easier to combine when the pieces are the same size.

17. Start with the main idea. For multiplying fractions by whole numbers, $9 \times \frac{2}{3} = \frac{18}{3} = 6$ cups. Always simplify at the end so the answer is clean and useful.



Want Even More Practice?

Check Out Our Other Tennessee TCAP Test Books!



Tennessee TCAP 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 TCAP 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!