

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 Common Core Test Books!



7 Common Core Grade 5 Math Practice Tests

7 full-length Grade 5 math practice tests with detailed explanations
Verified live product page for this state or program.



**7 Tests
Detailed
Explanations**

Important: Use the QR code for the verified live product page. Practice-test availability can vary by state or program, so this worksheet links to the strongest matching live Grade 5 math resource.

Targeted Review

- ✓ Focused Grade 5 math practice by tested skill
- ✓ Clear question formats for steady review
- ✓ Useful for homework, tutoring, and test prep
- ✓ Helps students find gaps before test day

Review the essentials first.

7 Practice Tests

- ✓ 7 complete practice tests for realistic preparation
- ✓ Detailed explanations support independent study
- ✓ Aligned with the selected state or program
- ✓ Strong fit for students who need more test-style practice

Build test stamina with full practice.

Confidence Builder

- ✓ Mixes skill review with test-taking practice
- ✓ Helps parents and teachers track readiness
- ✓ Encourages consistent practice over time
- ✓ Gives students a clearer path to mastery

Practice with purpose.