Multiplying Mixed Numbers

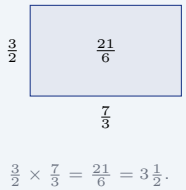
Name: _____	Date: _____	Score: _____ / 18

Quick Review and Helpful Hints

To multiply mixed numbers, first change each one into an *improper fraction*. Then multiply numerators and denominators (cancel common factors to keep it simple) and change the answer back into a mixed number. Never multiply the whole parts and fraction parts separately.

▷ **Example:** Multiply $1\frac{1}{2} \times 2\frac{1}{3}$. **Work:** Change to improper fractions: $1\frac{1}{2} = \frac{3}{2}$ and $2\frac{1}{3} = \frac{7}{3}$. Multiply: $\frac{3}{2} \times \frac{7}{3} = \frac{21}{6} = \frac{7}{2}$, then convert back.

★ **Answer:** $3\frac{1}{2}$



$\frac{3}{2} \times \frac{7}{3} = \frac{21}{6} = 3\frac{1}{2}$.

Practice Problems

Multiply. Write each answer in simplest form.

1. $1\frac{1}{2} \times 2$ _____
2. $2\frac{1}{4} \times 2$ _____
3. $1\frac{1}{3} \times 1\frac{1}{2}$ _____
4. $2\frac{1}{2} \times 1\frac{1}{5}$ _____
5. $1\frac{2}{3} \times 2\frac{1}{4}$ _____
6. $3\frac{1}{2} \times 1\frac{1}{3}$ _____
7. $2\frac{1}{2} \times 2\frac{1}{2}$ _____
8. $1\frac{3}{4} \times 2$ _____
9. $2\frac{2}{3} \times 1\frac{1}{2}$ _____
10. $1\frac{1}{5} \times 2\frac{1}{2}$ _____
11. $3\frac{1}{3} \times 1\frac{1}{5}$ _____
12. $2\frac{1}{4} \times 1\frac{1}{3}$ _____
13. $1\frac{1}{2} \times 1\frac{1}{2}$ _____
14. $4\frac{1}{2} \times \frac{2}{3}$ _____

Word Problems

15. A recipe needs $2\frac{1}{4}$ cups of flour. How much is needed to triple the recipe? _____
16. A rug is $1\frac{1}{2}$ feet wide and $2\frac{1}{2}$ feet long. What is its area? _____
17. A car uses $1\frac{1}{2}$ gallons of gas each hour. How much gas is used in $3\frac{1}{3}$ hours? _____
18. A board is $3\frac{1}{3}$ feet long. You need a piece $1\frac{1}{2}$ times that length. How long is it? _____

Answer Keys

1. $\boxed{3}$
2. $\boxed{4\frac{1}{2}}$
3. $\boxed{2}$
4. $\boxed{3}$
5. $\boxed{3\frac{3}{4}}$
6. $\boxed{4\frac{2}{3}}$
7. $\boxed{6\frac{1}{4}}$
8. $\boxed{3\frac{1}{2}}$
9. $\boxed{4}$
10. $\boxed{3}$
11. $\boxed{4}$
12. $\boxed{3}$
13. $\boxed{2\frac{1}{4}}$
14. $\boxed{3}$
15. $\boxed{6\frac{3}{4} \text{ cups}}$
16. $\boxed{3\frac{3}{4} \text{ ft}^2}$
17. $\boxed{5 \text{ gallons}}$
18. $\boxed{5 \text{ ft}}$

Step-by-Step Explanations

1. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change $1\frac{1}{2}$ to the improper fraction $\frac{3}{2}$, then multiply by 2: $\frac{3}{2} \times 2 = \frac{6}{2} = 3$. So the final answer is 3.

2. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite $2\frac{1}{4} = \frac{9}{4}$, then multiply: $\frac{9}{4} \times 2 = \frac{18}{4} = \frac{9}{2} = 4\frac{1}{2}$. So the final answer is $4\frac{1}{2}$.

3. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change both to improper fractions: $1\frac{1}{3} = \frac{4}{3}$ and $1\frac{1}{2} = \frac{3}{2}$. Multiply: $\frac{4}{3} \times \frac{3}{2} = \frac{12}{6} = 2$. So the final answer is 2.

4. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite as $\frac{5}{2}$ and $\frac{6}{5}$, then multiply: $\frac{5}{2} \times \frac{6}{5} = \frac{30}{10} = 3$. So the final answer is 3.

5. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change to $\frac{5}{3}$ and $\frac{9}{4}$: $\frac{5}{3} \times \frac{9}{4} = \frac{45}{12} = \frac{15}{4} = 3\frac{3}{4}$. So the final answer is $3\frac{3}{4}$.

6. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite as $\frac{7}{2}$ and $\frac{4}{3}$: $\frac{7}{2} \times \frac{4}{3} = \frac{28}{6} = \frac{14}{3} = 4\frac{2}{3}$. So the final answer is $4\frac{2}{3}$.

7. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change both to $\frac{5}{2}$: $\frac{5}{2} \times \frac{5}{2} = \frac{25}{4} = 6\frac{1}{4}$. So the final answer is $6\frac{1}{4}$.

8. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite $1\frac{3}{4} = \frac{7}{4}$, then multiply by 2: $\frac{7}{4} \times 2 = \frac{14}{4} = \frac{7}{2} = 3\frac{1}{2}$. So the final answer is $3\frac{1}{2}$.

9. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change to $\frac{8}{3}$ and $\frac{3}{2}$: $\frac{8}{3} \times \frac{3}{2} = \frac{24}{6} = 4$. So the final answer is 4.

10. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite as $\frac{6}{5}$ and $\frac{5}{2}$: $\frac{6}{5} \times \frac{5}{2} = \frac{30}{10} = 3$. So the final answer is 3.

11. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change to $\frac{10}{3}$ and $\frac{6}{5}$: $\frac{10}{3} \times \frac{6}{5} = \frac{60}{15} = 4$. So the final answer is 4.

12. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite as $\frac{9}{4}$ and $\frac{4}{3}$: $\frac{9}{4} \times \frac{4}{3} = \frac{36}{12} = 3$. So the final answer is 3.

13. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Change both to $\frac{3}{2}$: $\frac{3}{2} \times \frac{3}{2} = \frac{9}{4} = 2\frac{1}{4}$. So the final answer is $2\frac{1}{4}$.

14. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rewrite $4\frac{1}{2} = \frac{9}{2}$: $\frac{9}{2} \times \frac{2}{3} = \frac{18}{6} = 3$. So the final answer is 3.

15. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Tripling means multiply by 3. Change $2\frac{1}{4} = \frac{9}{4}$, then $\frac{9}{4} \times 3 = \frac{27}{4} = 6\frac{3}{4}$ cups. So the final answer is $6\frac{3}{4}$ cups.

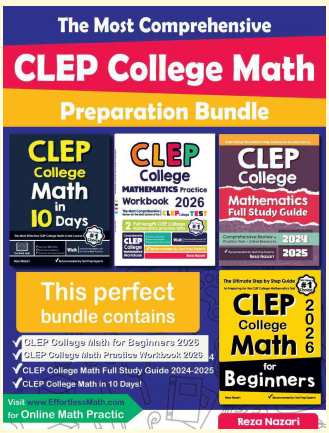
16. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Area is length times width. Rewrite as $\frac{3}{2}$ and $\frac{5}{2}$: $\frac{3}{2} \times \frac{5}{2} = \frac{15}{4} = 3\frac{3}{4}$ square feet. So the final answer is $3\frac{3}{4}$ ft^2.

17. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Multiply the rate by the time. Change to $\frac{3}{2}$ and $\frac{10}{3}$: $\frac{3}{2} \times \frac{10}{3} = \frac{30}{6} = 5$ gallons. So the final answer is 5 gallons.

18. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Multiply the length by $1\frac{1}{2}$. Rewrite as $\frac{10}{3}$ and $\frac{3}{2}$: $\frac{10}{3} \times \frac{3}{2} = \frac{30}{6} = 5$ ft. So the final answer is 5 ft.

Keep Building CLEP College Mathematics Skills

Recommended Effortless Math resources



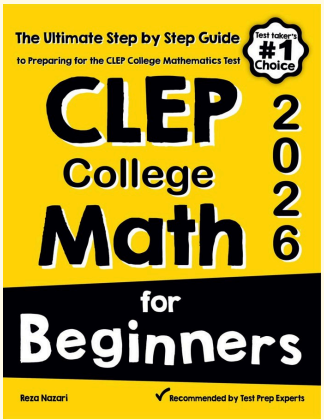
CLEP College Mathematics Test Prep Bundle

Use the complete CLEP College Mathematics resource for review, worked examples, extra practice, and test-style questions after each worksheet.

Scan Me

Download Instantly

STUDENT FAVORITE - CLEP College Mathematics for Beginners



CLEP College Mathematics for Beginners 2026

Step-by-step lessons, topic practice, and full review support for students who want a calm path through CLEP College Mathematics preparation.

A strong companion for self-study, tutoring, homework, and targeted review.

PDF Edition

Scan Me

Download Instantly