

Word Problems: Multiplying Fractions

Grade 5 Math • Section 5.6

Name: _____

Date: _____

Score: _____ / 10

Quick Review and Helpful Hints

- 👉 **Clue words for multiplication:** “of,” “each,” “per,” “part of a group.” “ $\frac{1}{3}$ of 12” means $\frac{1}{3} \times 12$.
- 💡 Draw a picture or model if the problem involves finding a fraction **of** a fraction.
- 🗨 Always simplify your final answer and make sure it is reasonable.

🔍 **Example:** A painter can finish $\frac{3}{5}$ of a wall per hour. How much of the wall can he paint in $\frac{1}{2}$ hour?

👉 “ $\frac{1}{2}$ of $\frac{3}{5}$ ” = $\frac{1}{2} \times \frac{3}{5} = \frac{3}{10}$ of the wall.

💡 **Answer:** $\frac{3}{10}$ of the wall

Practice Problems

Solve each word problem. Show your work.

1. A park covers $\frac{3}{4}$ of a square mile. A pond covers $\frac{2}{5}$ of the park. What fraction of a square mile is the pond? _____
2. A roll of fabric is 12 yards long. A tailor uses $\frac{5}{8}$ of the roll. How many yards did the tailor use? _____
3. Maria reads $\frac{2}{3}$ of a book on Monday. On Tuesday she reads $\frac{1}{4}$ of what is left. What fraction of the whole book did she read on Tuesday? _____
4. A brownie recipe uses $1\frac{1}{2}$ cups of sugar. Jen wants to make $\frac{2}{3}$ of the recipe. How much sugar does she need? _____
5. A field is $4\frac{1}{3}$ acres. A farmer plants corn on $\frac{3}{4}$ of the field. How many acres of corn are planted? _____
6. There are 30 students in a class. $\frac{2}{5}$ are on the soccer team. Of those, $\frac{1}{4}$ are goalkeepers. How many goalkeepers are there? _____
7. A rectangular garden is $\frac{3}{4}$ yard wide and $\frac{5}{6}$ yard long. What is the area in square yards? _____
8. A car travels 55 miles per hour. How far does it go in $\frac{3}{4}$ of an hour? _____

Word Problems

9. A pool is $\frac{4}{5}$ full. After a hot day, $\frac{1}{3}$ of the water evaporates. What fraction of the pool's capacity remains? _____
10. A school has 240 students. $\frac{3}{8}$ of them play a sport. Of those, $\frac{2}{3}$ play soccer. How many students play soccer? _____



Answer Keys

1. $\frac{3}{10}$

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

3. $\frac{1}{12}$

4. 1 cup

5. $3\frac{1}{4}$ acres

6. 3

7. $\frac{5}{8}$ yd²

8. $41\frac{1}{4}$ mi

9. $\frac{8}{15}$

10. 60

Step-by-Step Explanations

1. Start with the main idea. For multiplying fractions, the pond is $\frac{2}{5}$ of $\frac{3}{4}$: $\frac{3}{4} \times \frac{2}{5} = \frac{3}{10}$. Fractions are easier to combine when the pieces are the same size.

2. Keep the work tidy. For multiplying fractions, $\frac{5}{8} \times 12 = \frac{60}{8} = 7\frac{1}{2}$. Always simplify at the end so the answer is clean and useful.

3. Look at what the numbers mean. For multiplying fractions, after Monday, $\frac{1}{3}$ remains; Tuesday is $\frac{1}{4}$ of that, or $\frac{1}{12}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

4. Use the setup first. For multiplying fractions, $\frac{2}{3}$ of $1\frac{1}{2}$ is $\frac{2}{3} \times \frac{3}{2} = 1$. Fractions are easier to combine when the pieces are the same size.

5. Check the size of the answer. For multiplying fractions, $4\frac{1}{3} \times \frac{3}{4} = \frac{13}{3} \times \frac{3}{4} = \frac{13}{4} = 3\frac{1}{4}$. Always simplify at the end so the answer is clean and useful.

6. Match the operation to the words. For multiplying fractions, $\frac{2}{5}$ of 30 is 12 soccer players; $\frac{1}{4}$ of 12 is 3. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

7. Write the important values first. For multiplying fractions, area is $\frac{3}{4} \times \frac{5}{6} = \frac{15}{24} = \frac{5}{8}$. Fractions are easier to combine when the pieces are the same size.

8. Follow the pattern carefully. For multiplying fractions, $55 \times \frac{3}{4} = \frac{165}{4} = 41\frac{1}{4}$. Always simplify at the end so the answer is clean and useful.

9. Start with the main idea. For multiplying fractions, if $\frac{1}{3}$ of the water evaporates, $\frac{2}{3}$ remains; $\frac{4}{5} \times \frac{2}{3} = \frac{8}{15}$. For mixed numbers, converting to improper fractions can make the arithmetic calmer.

10. Keep the work tidy. For multiplying fractions, $\frac{3}{8}$ of 240 is 90 athletes; $\frac{2}{3}$ of 90 is 60 soccer players. Fractions are easier to combine when the pieces are the same size.



Want Even More Practice?

Check Out Our Other Massachusetts MCAS Test Books!



Massachusetts MCAS 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 MCAS 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!