

Grade 5 · Multiplying Fractions · Quiz

Common Core 5.NF.B.3, 5.NF.B.4, 5.NF.B.5, 5.NF.B.6 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

Ten multiple-choice questions on fractions as division, multiplying fractions and mixed numbers, area models and the size of products. Each question has one correct answer, and the explanation after each one shows the mistake behind the wrong choices.

Grade 5 Common Core: 5.NF.B.3 · 5.NF.B.4 · 5.NF.B.5 · 5.NF.B.6

Questions

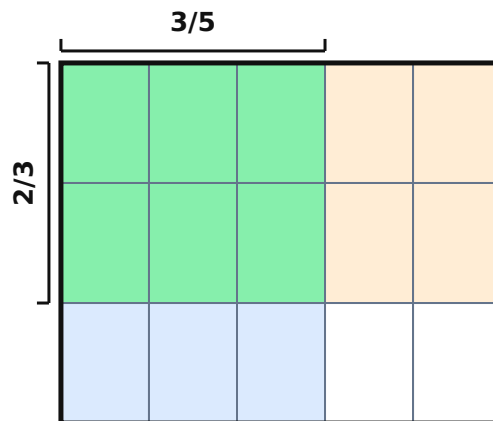
Question 1

What is $5 \div 6$ written as a fraction?

- A. $\frac{5}{6}$
- B. $\frac{6}{5}$
- C. $\frac{1}{30}$
- D. $\frac{5}{11}$

Question 2

The model shows $\frac{2}{3}$ of $\frac{3}{5}$ in green. What is the product?



Columns $\frac{3}{5}$, rows $\frac{2}{3}$.

- A. $\frac{1}{9}$
- B. $\frac{11}{5}$
- C. $\frac{10}{9}$
- D. $\frac{10}{9}$

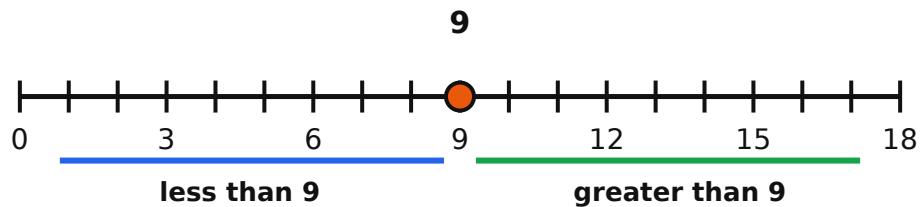
Question 3

What is $4 \times \frac{3}{8}$?

- A. $\frac{3}{2}$
- B. $\frac{12}{2}$
- C. $\frac{12}{8}$
- D. $\frac{1}{2}$

Question 4

Which product is less than 9?



The point marks 9 on the number line.

- A. $9 \times \frac{5}{4}$
- B. $9 \times \frac{3}{4}$
- C. $9 \times 1\frac{1}{2}$
- D. 9×2

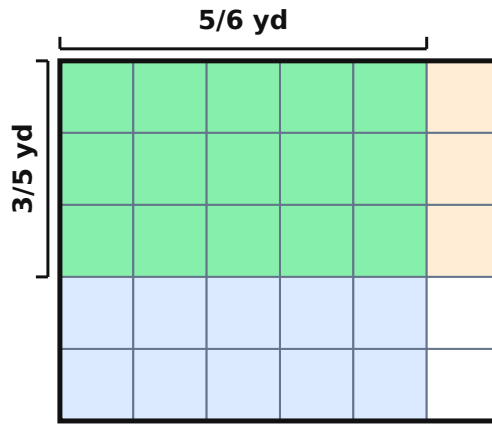
Question 5

What is $1\frac{1}{2} \times 2\frac{2}{3}$?

- A. $2\frac{1}{3}$
- B. 4
- C. $4\frac{1}{6}$
- D. $\frac{9}{16}$

Question 6

What is the area of the rectangle?



Sides in yards.

- A. $\frac{8}{11}$ yd²
- B. $\frac{25}{18}$ yd²
- C. $1\frac{13}{30}$ yd²
- D. $\frac{1}{2}$ yd²

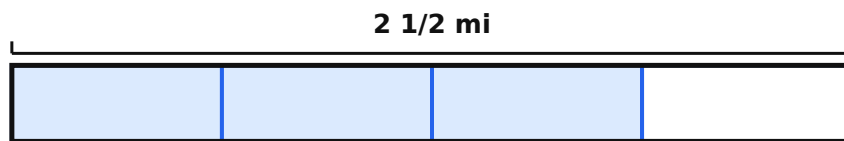
Question 7

Which statement is true?

- A. $\frac{3}{4} \times 5 > 5$
- B. $1\frac{1}{4} \times 5 > 5$
- C. $1 \times 5 < 5$
- D. $\frac{1}{3} \times 5 = 5$

Question 8

Aisha runs $\frac{3}{4}$ of a $2\frac{1}{2}$ -mile course. How far does she run?



The course.

- A. $1\frac{7}{8}$ mi
- B. $3\frac{1}{4}$ mi
- C. $3\frac{1}{3}$ mi
- D. $1\frac{1}{8}$ mi

Question 9

Four sandwiches are shared equally among 6 friends. How much sandwich does each friend get?

- A. $\frac{1}{4}$
- B. $\frac{1}{4}$
- C. $\frac{1}{4}$
- D. $\frac{1}{4}$

Question 10

A jug holds 12 cups. Sofia fills it $\frac{5}{6}$ full. How many cups are in the jug?

- A. 14.4 cups
- B. 2 cups
- C. 10 cups
- D. $\frac{5}{72}$ cup

Answer key

1. **A** - A division of whole numbers is the fraction with the dividend on top: $5 \div 6 = \frac{5}{6}$. Flipping them gives $\frac{6}{5}$, a common mistake.
2. **C** - $\frac{2}{3} \times \frac{3}{5} = \frac{6}{15} = \frac{2}{5}$. Adding tops and bottoms ($\frac{5}{8}$) is a common mistake.
3. **D** - $4 \times \frac{3}{8} = \frac{12}{8} = \frac{3}{2}$. Multiplying the denominator by 4 as well gives the wrong $\frac{12}{32}$.
4. **B** - A factor less than 1 makes the product smaller: $9 \times \frac{3}{4} = 6\frac{3}{4}$. The others use factors greater than 1.
5. **B** - $\frac{3}{2} \times \frac{8}{3} = \frac{24}{6} = 4$. Multiplying wholes and fractions separately gives $2\frac{1}{3}$, and adding gives $4\frac{1}{6}$.
6. **D** - $\frac{5}{6} \times \frac{3}{5} = \frac{15}{30} = \frac{1}{2}$. Adding the sides gives $1\frac{13}{30}$, which is not an area.
7. **B** - A factor greater than 1 enlarges a number, so $1\frac{1}{4} \times 5 = 6\frac{1}{4} > 5$. A factor below 1 shrinks it.
8. **A** - $\frac{3}{4} \times \frac{5}{2} = \frac{15}{8} = 1\frac{7}{8}$. Adding the numbers gives $3\frac{1}{4}$, which is longer than the whole course.
9. **D** - $4 \div 6 = \frac{4}{6} = \frac{2}{3}$. Each friend gets less than one sandwich, so $\frac{3}{2}$ cannot be right.
10. **C** - $\frac{5}{6} \times 12 = 10$. Dividing 12 by $\frac{5}{6}$ would give 14.4, but the problem asks for a fraction of 12.

Remember:

- A fraction is a division: $a \div b = \frac{a}{b}$.
- To multiply fractions, multiply numerators and multiply denominators, then simplify.
- Write mixed numbers as improper fractions before multiplying.
- The area of a rectangle with fractional sides is length times width.
- Multiplying by a factor less than 1 gives a smaller product; greater than 1 gives a larger product.