

Grade 4 - Multiplying a Fraction by a Whole Number - Quiz

Common Core 4.NF.B.4a, 4.NF.B.4b, 4.NF.B.4c · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Choose the best answer for each of the 10 questions on multiplying a fraction by a whole number. Read the explanation after each question to learn from any mistake.

Grade 4 · Common Core State Standards: **4.NF.B.4a, 4.NF.B.4b, 4.NF.B.4c**

Questions

Question 1

Which expression shows $\frac{3}{4}$ as a multiple of $\frac{1}{4}$?

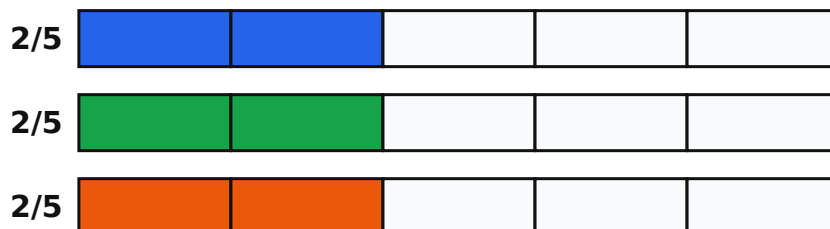
- A. $3 \times \frac{1}{4}$
- B. $4 \times \frac{1}{3}$
- C. $3 + \frac{1}{4}$
- D. 3×4

Question 2

What is $4 \times \frac{1}{5}$?

- A. $\frac{4}{20}$
- B. $\frac{4}{5}$
- C. $\frac{5}{4}$
- D. $\frac{1}{20}$

Question 3



Three strips with $\frac{2}{5}$ shaded.

Which equation does the picture show?

- A. $3 \times \frac{2}{5} = \frac{6}{10}$
- B. $3 \times \frac{2}{5} = \frac{6}{5}$
- C. $3 \times \frac{2}{5} = \frac{6}{15}$
- D. $3 \times \frac{2}{5} = \frac{6}{10}$

Question 4

What is $5 \times \frac{3}{8}$?

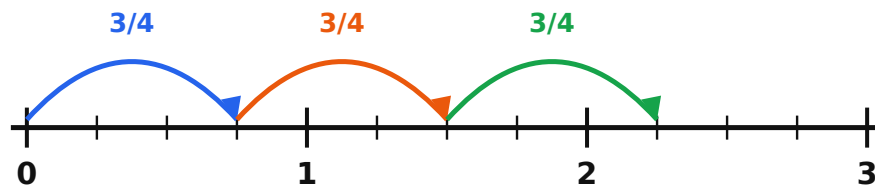
- A. $\frac{15}{40}$
- B. $\frac{8}{13}$
- C. $\frac{15}{16}$
- D. $\frac{3}{40}$

Question 5

What is $6 \times \frac{2}{3}$?

- A. 12
- B. 8
- C. 4
- D. 3

Question 6



Three jumps of $\frac{3}{4}$ on a number line.

Where does the last jump land?

- A. $\frac{6}{4}$
- B. $\frac{12}{4}$
- C. $\frac{3}{12}$
- D. $\frac{9}{4}$

Question 7

Which fraction equals $2 \times \frac{7}{10}$?

- A. $\frac{14}{10}$
- B. $\frac{9}{10}$
- C. $\frac{14}{20}$

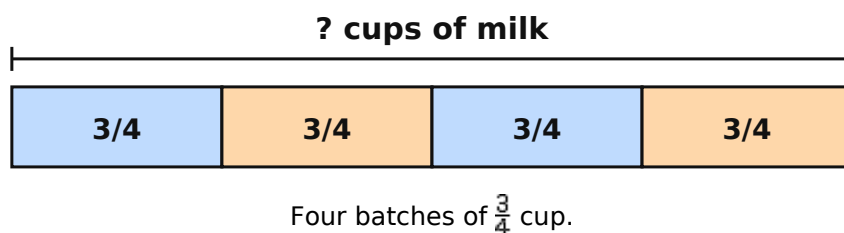
D. $\frac{7}{20}$

Question 8

Which expression equals $\frac{9}{4}$?

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

Question 9



How many cups of milk are needed for 4 batches?

- A. $\frac{7}{4}$ cups
- B. $\frac{3}{16}$ cup
- C. $\frac{12}{16}$ cup
- D. 3 cups

Question 10

Priya runs $\frac{2}{3}$ mile each day for 5 days. How far does she run in all?

- A. $3\frac{1}{3}$ miles
- B. $\frac{10}{15}$ mile
- C. $\frac{7}{3}$ miles
- D. $3\frac{2}{3}$ miles

Answers

1. **A** - Three fourths is 3 pieces of one fourth, so it is $3 \times \frac{1}{4}$.
2. **B** - Multiply the numerator: $4 \times 1 = 4$. The denominator stays 5.
3. **B** - There are 3 groups of 2 fifths, which is 6 fifths. The denominator is not multiplied.
4. **C** - $5 \times 3 = 15$ eighths. Multiplying the denominator by 5 is the common mistake.
5. **C** - $6 \times 2 = 12$ thirds, and 12 thirds is 4 wholes. Forgetting the denominator gives 12.
6. **D** - Each jump is $\frac{3}{4}$, so the jumps land at $\frac{3}{4}$, $\frac{6}{4}$ and $\frac{9}{4}$.
7. **A** - $2 \times 7 = 14$ tenths. Adding 2 to the numerator gives 9.
8. **B** - Nine fourths is 9 copies of one fourth.
9. **D** - $4 \times \frac{3}{4} = \frac{12}{4} = 3$ cups. The denominator stays 4.
10. **A** - $5 \times \frac{2}{3} = \frac{10}{3}$, which is $3 \frac{1}{3}$ miles.

Remember

- A fraction a/b is a multiple of the unit fraction $1/b$, so $a/b = a \times 1/b$.
- $n \times (a/b) = (n \times a)/b$. Multiply the whole number by the numerator and keep the denominator.
- Repeated jumps on a number line show the same product.
- Write improper fraction products as mixed numbers when it helps.
- Equal groups in word problems signal fraction times whole number.