

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

Common Core 4.NF.B.4 · mathovore.fr

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

Test what you know about multiplying fractions by whole numbers. Each question has one correct answer. Read the model carefully, and use the explanation after each question to learn from any mistake.

Grade 4 Common Core: 4.NF.B.4

Questions

Question 1

Which expression matches the shaded part?



Three of eight parts shaded.

- A. $8 \times \frac{1}{3}$
- B. $3 \times \frac{3}{8}$
- C. $3 + \frac{1}{8}$
- D. $3 \times \frac{1}{8}$

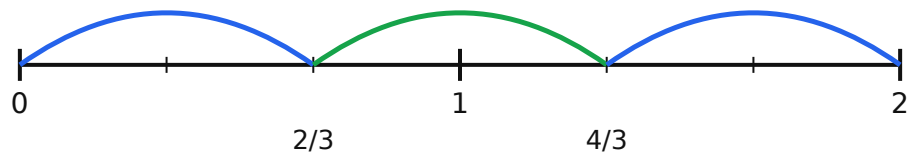
Question 2

What is $4 \times \frac{3}{5}$?

- A. $\frac{12}{20}$
- B. $\frac{12}{5}$
- C. $\frac{7}{5}$
- D. $\frac{12}{9}$

Question 3

The number line shows equal hops. Which sentence matches it?



Three equal hops.

- A. $3 \times \frac{2}{3} = 2$
- B. $2 \times \frac{2}{3} = \frac{4}{3}$
- C. $3 \times \frac{2}{3} = \frac{6}{9}$
- D. $3 + \frac{2}{3} = 3\frac{2}{3}$

Question 4

Complete: $\frac{7}{10} = _ \times \frac{1}{10}$.

- A. 10
- B. 7
- C. 70
- D. 3

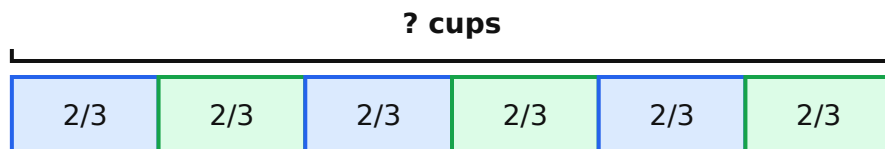
Question 5

Write $5\frac{3}{4}$ as a mixed number.

- A. $5\frac{3}{4}$
- B. $3\frac{1}{4}$
- C. $3\frac{3}{4}$
- D. $1\frac{3}{4}$

Question 6

Diego drinks $\frac{2}{3}$ cup of juice each day. How many cups does he drink in 6 days?



Six days.

- A. $\frac{12}{18}$ cup
- B. $\frac{8}{3}$ cups
- C. 3 cups
- D. 4 cups

Question 7

Which product is the greatest?

- A. $3 \times \frac{3}{8}$
- B. $2 \times \frac{3}{8}$
- C. $5 \times \frac{1}{8}$
- D. $4 \times \frac{1}{8}$

Question 8

How much is shaded in all?

Row 1	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$
Row 2	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Two rows of sixths.

- A. $\frac{1}{6}$
- B. $\frac{7}{6}$
- C. $\frac{5}{12}$
- D. $\frac{10}{12}$

Question 9

Priya cuts 5 pieces of ribbon that are each $\frac{3}{8}$ yard long. How many yards is that in all?

- A. $\frac{15}{40}$
- B. $1 \frac{1}{8}$
- C. $1 \frac{7}{8}$
- D. $\frac{8}{15}$

Question 10

Ethan says $6 \times \frac{1}{4} = \frac{6}{24}$. What is the mistake?

- A. He should add 6 and $\frac{1}{4}$, so the sum is $6 \frac{1}{4}$.
- B. He should keep the denominator 4, so the product is $\frac{6}{4}$.
- C. Nothing is wrong, because $\frac{6}{24}$ is the correct product.
- D. He should multiply by 4, so the product is $\frac{4}{4}$.

Answer key

1. **D** – Each part is one eighth and 3 parts are shaded. Swapping 3 and 8 is a common mistake.
2. **B** – Multiply the numerator: $4 \times 3 = 12$. The denominator stays 5. Changing the denominator is a common mistake.
3. **A** – Three hops of two thirds make six thirds, which is 2. Adding 3 to the fraction does not match the hops.
4. **B** – Seven tenths is 7 copies of one tenth.
5. **C** – $5 \times \frac{3}{4} = \frac{15}{4}$. Twelve fourths make 3 wholes and 3 fourths remain.
6. **D** – Six times two thirds is twelve thirds, which is 4 wholes. Dividing 6 by 2 gives 3, which is a mistake.
7. **A** – The products are $\frac{9}{8}$, $\frac{6}{8}$, $\frac{5}{8}$ and $\frac{4}{8}$. Nine eighths is the greatest.
8. **A** – Each row has 5 sixths, so 2 rows have 10 sixths. Adding $2 + 5$ is a common mistake.
9. **C** – $5 \times \frac{3}{8} = \frac{15}{8}$. Eight eighths make 1 whole and 7 eighths remain.
10. **B** – Only the numerator is multiplied. The pieces stay fourths, so the product is six fourths.

Remember:

- A unit fraction has a numerator of 1, like $\frac{1}{8}$.
- Any fraction $\frac{a}{b}$ equals a copies of $\frac{1}{b}$, so $\frac{5}{8} = 5 \times \frac{1}{8}$.
- To find $n \times \frac{a}{b}$, multiply n by the numerator a and keep the denominator b .
- If the numerator is bigger than the denominator, write the product as a mixed number.
- Fraction multiplication is repeated addition: $3 \times \frac{2}{5} = \frac{2}{5} + \frac{2}{5} + \frac{2}{5}$.