

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

Common Core 4.NF.B.4 · mathovore.fr

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

This test has 9 questions worth 20 points. Show every step of your work, write products greater than 1 as mixed numbers when asked, and label word-problem answers with units. Calculators are not allowed.

Test information

- **Grade:** Grade 4
- **Chapter:** Multiplying a Fraction by a Whole Number
- **Common Core:** 4.NF.B.4
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 2 pts; Question 5: 2 pts; Question 6: 2 pts; Question 7: 3 pts; Question 8: 3 pts; Question 9: 2 pts)

Question 1: Fractions as multiples (2 points)

The strip shows a whole cut into equal parts.



Strip cut into sixths.

- Write the shaded part as a whole number times a unit fraction. (1 point)
- Write $\frac{9}{10}$ as a whole number times a unit fraction. (1 point)

Question 2: Whole number times fraction (2 points)

- Find $6 \times \frac{1}{5}$. (1 point)
- Find $4 \times \frac{3}{10}$. (1 point)

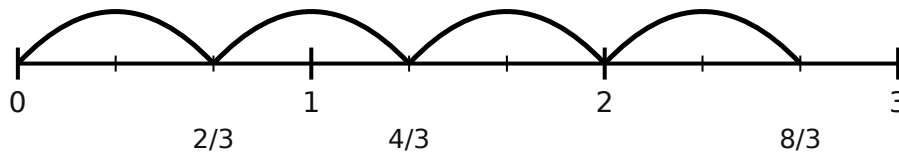
Question 3: Products as mixed numbers (2 points)

Write each product as a mixed number.

- a. $5 \times \frac{3}{4}$ (1 point)
- b. $3 \times \frac{5}{6}$ (1 point)

Question 4: Hops on a number line (2 points)

The number line shows equal hops from 0.



Four hops of the same length.

- a. Write a multiplication sentence for the four hops and the product as a fraction. (1 point)
- b. Write the product as a mixed number. (1 point)

Question 5: Find the error (2 points)

Priya wrote $3 \times \frac{2}{5} = \frac{6}{15}$.

- a. Explain her mistake. (1 point)
- b. Write the correct product. (1 point)

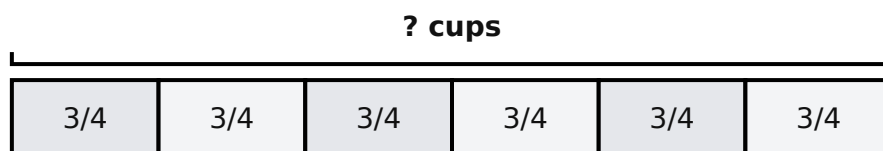
Question 6: Compare products (2 points)

Write $<$, $>$, or $=$ to compare.

- a. $4 \times \frac{3}{8}$ _ $3 \times \frac{5}{8}$ (1 point)
- b. $6 \times \frac{1}{3}$ _ $2 \times \frac{3}{3}$ (1 point)

Question 7: Trail mix (3 points)

Maya makes trail mix. Each batch uses $\frac{3}{4}$ cup of raisins.



Six batches.

- a. How many cups of raisins does she need for 6 batches? (1 point)
- b. Maya has 4 cups of raisins. Does she have enough for 6 batches? If not, how many more cups does she need? (2 points)

Question 8: Running log (3 points)

Noah runs $\frac{7}{10}$ mile each day for 4 days. Aisha runs $\frac{9}{10}$ mile each day for 3 days.

- How far does Noah run? (1 point)
- How far does Aisha run? (1 point)
- Who runs farther, and by how much? (1 point)

Question 9: Missing numbers (2 points)

- Find the missing numerator: $4 \times \frac{\quad}{5} = \frac{12}{5}$ (1 point)
- Find $7 \times \frac{5}{12}$ and write it as a mixed number. (1 point)