

Grade 4 - Adding and Subtracting Fractions and Mixed Numbers - Quiz

Common Core 4.NF.B.3a, 4.NF.B.3b, 4.NF.B.3c, 4.NF.B.3d · maths-pdf.fr/en/

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

Choose the best answer for each of the 10 questions on adding and subtracting fractions and mixed numbers. Read the explanation after each question to learn from any mistake.

Grade 4 · Common Core State Standards: **4.NF.B.3a, 4.NF.B.3b, 4.NF.B.3c, 4.NF.B.3d**

Questions

Question 1

What is $\frac{3}{8} + \frac{2}{8}$?

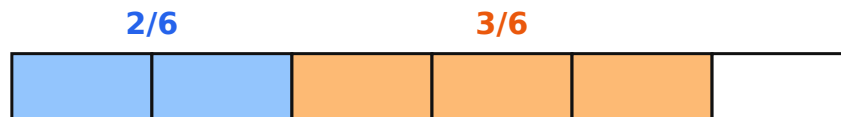
- A. $\frac{5}{8}$
- B. $\frac{5}{16}$
- C. $\frac{1}{16}$
- D. $\frac{1}{8}$

Question 2

What is $\frac{9}{10} - \frac{3}{10}$?

- A. $\frac{6}{0}$
- B. $\frac{6}{10}$
- C. $\frac{12}{10}$
- D. $\frac{6}{20}$

Question 3



5 of 6 equal parts are shaded in all

A strip cut into sixths.

Which equation matches the strip?

- A. $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$

- B. $\frac{2}{3} + \frac{3}{4} = \frac{5}{12}$
 C. $\frac{2}{3} + \frac{3}{4} = \frac{12}{12}$
 D. $\frac{2}{3} + \frac{3}{4} = \frac{1}{6}$

Question 4

Which sum equals $\frac{5}{6}$?

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

Question 5

Which improper fraction equals $2\frac{1}{3}$?

- A. $\frac{6}{3}$
 B. $\frac{5}{3}$
 C. $\frac{7}{3}$
 D. $\frac{7}{6}$

Question 6



2 wholes and 1/4

Strips cut into fourths.

Which improper fraction does the picture show?

- A. $\frac{7}{4}$
 B. $\frac{10}{4}$
 C. $\frac{9}{4}$
 D. $\frac{12}{4}$

Question 7

What is $1\frac{3}{5} + 2\frac{4}{5}$?

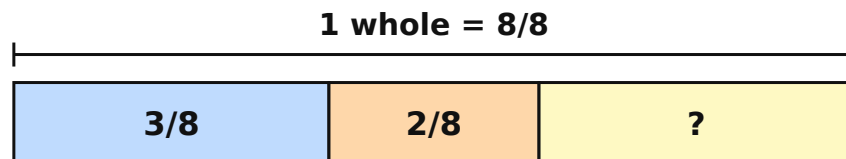
- A. $3\frac{7}{10}$
 B. $4\frac{1}{5}$
 C. $3\frac{7}{5}$
 D. $4\frac{7}{5}$

Question 8

What is $5\frac{1}{4} - 2\frac{3}{4}$?

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

Question 9



A tape diagram.

Liam ate $\frac{3}{8}$ of a pie and Priya ate $\frac{2}{8}$. How much of the pie is left?

- A. $\frac{1}{16}$
- B. $\frac{1}{8}$
- C. $\frac{5}{8}$
- D. $\frac{5}{16}$

Question 10

Sofia had $4\frac{1}{3}$ cups of flour and used $1\frac{2}{3}$ cups. How much flour is left?

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

Answers

1. **A** - Add the numerators and keep the denominator: $3 + 2 = 5$. Adding the denominators is the common mistake.
2. **B** - Subtract the numerators: $9 - 3 = 6$. The denominator stays 10.
3. **A** - 2 sixths and 3 sixths make 5 sixths. The denominator does not change.
4. **B** - $2 + 3 = 5$ eighths. The others make 4, 6 and 8 eighths.
5. **D** - $2 = \frac{6}{3}$, and $\frac{6}{3} + \frac{1}{3} = \frac{7}{3}$. Forgetting the extra third gives $\frac{6}{3}$.
6. **C** - There are 2 full strips (8 fourths) and 1 more fourth, which is 9 fourths.
7. **D** - Wholes: $1 + 2 = 3$. Fractions: $\frac{3}{5} + \frac{4}{5} = \frac{7}{5} = 1\frac{2}{5}$. Total $4\frac{2}{5}$.
8. **C** - $5\frac{1}{4} = \frac{21}{4}$ and $2\frac{3}{4} = \frac{11}{4}$. $\frac{21}{4} - \frac{11}{4} = \frac{10}{4} = 2\frac{2}{4}$.
9. **B** - The whole is $\frac{8}{8}$. $\frac{8}{8} - \frac{5}{8} = \frac{3}{8}$. The $\frac{5}{8}$ is how much was eaten.
10. **A** - $4\frac{1}{3} = \frac{13}{3}$ and $1\frac{2}{3} = \frac{5}{3}$. $\frac{13}{3} - \frac{5}{3} = \frac{8}{3} = 2\frac{2}{3}$.

Remember

- With like denominators, add or subtract the numerators and keep the denominator.
- A fraction can be decomposed in more than one way, such as $\frac{5}{6} = \frac{2}{6} + \frac{3}{6}$.
- A mixed number such as $2\frac{1}{4}$ equals the improper fraction $\frac{9}{4}$.
- To add mixed numbers, add the wholes and the fractions, then regroup when the fraction is greater than 1.
- To subtract mixed numbers, change them to improper fractions first.