

Grade 5 · Adding and Subtracting Fractions with Unlike Denominators · Test

Common Core 5.NF.A.1, 5.NF.A.2 · mathovore.fr

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

This test has nine questions worth 20 points in total and should take about 45 minutes. It covers adding and subtracting fractions and mixed numbers with unlike denominators, estimation, and word problems. Show your work for every part so that partial credit can be awarded.

Test information

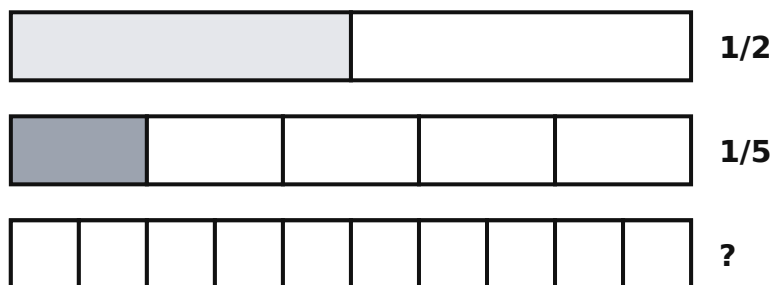
- **Grade:** Grade 5
- **Chapter:** Adding and Subtracting Fractions with Unlike Denominators
- **Common Core:** 5.NF.A.1, 5.NF.A.2
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 2 pts; Question 5: 2 pts; Question 6: 2 pts; Question 7: 2 pts; Question 8: 3 pts; Question 9: 3 pts)

Question 1: Rename and add (2 points)

- a. Rename $\frac{3}{4}$ and $\frac{5}{6}$ with a common denominator. (1 point)
- b. Find $\frac{3}{4} + \frac{5}{6}$ as a mixed number. (1 point)

Question 2: Fraction bars (2 points)

The bars show one half and one fifth.



Bars for $\frac{1}{2}$ and $\frac{1}{5}$.

- Write both fractions in tenths. (1 point)
- Find the sum. (1 point)

Question 3: Subtract fractions (2 points)

- $\frac{7}{8} - \frac{1}{10}$ (1 point)
- $\frac{5}{6} - \frac{3}{10}$ (1 point)

Question 4: Add mixed numbers (2 points)

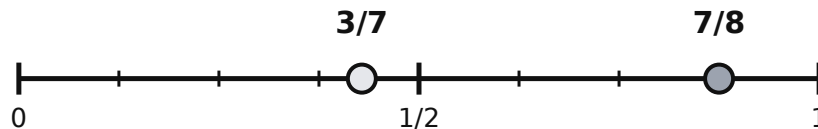
- $3\frac{2}{3} + 1\frac{1}{4}$ (1 point)
- $2\frac{5}{6} + 3\frac{3}{4}$ (1 point)

Question 5: Subtract mixed numbers (2 points)

- $6\frac{1}{3} - 2\frac{5}{6}$ (1 point)
- $8 - 4\frac{3}{8}$ (1 point)

Question 6: Benchmark estimation (2 points)

The number line shows $\frac{3}{7}$ and $\frac{7}{8}$.

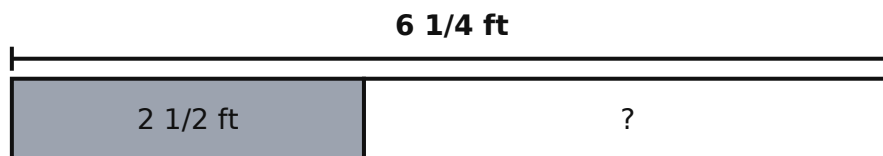


$\frac{3}{7}$ and $\frac{7}{8}$ on a number line.

- Round each fraction to 0, $\frac{1}{2}$, or 1 and estimate the sum. (1 point)
- Zoe says the sum is $\frac{10}{15}$. Explain why her answer is not reasonable. (1 point)

Question 7: Cutting a board (2 points)

A board is $6\frac{1}{4}$ feet long. Noah cuts a piece that is $2\frac{1}{2}$ feet long.



Tape diagram of the board.

- Write a subtraction equation for the length that is left. (1 point)

- b. Find the length that is left. (1 point)

Question 8: Smoothie recipe (3 points)

Maya's smoothie uses $\frac{2}{3}$ cup of strawberries, $\frac{1}{2}$ cup of banana, and $\frac{1}{4}$ cup of yogurt. Her blender holds 2 cups.

- a. How many cups are strawberries and banana together? (1 point)
- b. How many cups are in the smoothie in all? (1 point)
- c. How much room is left in the blender? (1 point)

Question 9: Hiking trip (3 points)

Jamal hikes $2\frac{3}{4}$ miles in the morning and $1\frac{5}{6}$ miles in the afternoon. The whole trail is 6 miles long.

- a. How many miles does he hike in all? (1 point)
- b. How many miles of the trail are left? (1 point)
- c. Use benchmark fractions to show that your answer to part (a) is reasonable. (1 point)