

Grade 4 - Adding and Subtracting Fractions and Mixed Numbers - Answer Key

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

Use this answer key to check each problem on the adding and subtracting fractions worksheet. Every solution shows the regrouping or the conversion between mixed numbers and improper fractions, step by step.

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

Exercise 1 - Add eighths

Add the numerators and keep the denominator: $2+3=5$.

Answer: $\frac{5}{8}$.

Exercise 2 - Add tenths

$4+5=9$, and the denominator stays 10.

Answer: $\frac{9}{10}$.

Exercise 3 - Subtract twelfths

$7-2=5$.

Answer: $\frac{5}{12}$.

Exercise 4 - Subtract tenths

$9-4=5$, so the answer is $\frac{5}{10}$, which equals $\frac{1}{2}$.

Answer: $\frac{5}{10}$.

Exercise 5 - Unit fractions

A unit fraction has numerator 1. Three fourths is 3 pieces of $\frac{1}{4}$.

Answer: $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$.

Exercise 6 - Decompose five sixths

Split 5 into two numbers: $1 + 4$ and $2 + 3$.

Answer: $\frac{5}{6} = \frac{1}{6} + \frac{4}{6}$ **and** $\frac{5}{6} = \frac{2}{6} + \frac{3}{6}$.

Exercise 7 - Sum greater than 1

$5+6=11$, so the sum is $\frac{11}{8}$.

$11 \div 8 = 1$ remainder 3, so $\frac{11}{8} = 1\frac{3}{8}$.

Answer: $1\frac{3}{8}$.

Exercise 8 - Mixed number to fraction

$2 = \frac{6}{3}$, so $\frac{6}{3} + \frac{1}{3} = \frac{7}{3}$.



2 wholes and $\frac{1}{3}$

Seven thirds in all.

Answer: $\frac{7}{3}$.

Exercise 9 - Fraction to mixed number

$11 \div 4 = 2$ remainder 3.

Answer: $2\frac{3}{4}$.

Exercise 10 - Add mixed numbers

Wholes: $1+2=3$. Fractions: $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$.

Answer: $3\frac{3}{5}$.

Exercise 11 - Regroup after adding

Wholes: $3+1=4$. Fractions: $\frac{5}{6}+\frac{4}{6}=\frac{9}{6}=1\frac{3}{6}$.

$$4+1\frac{3}{6}=5\frac{3}{6}.$$

Answer: $5\frac{3}{6}$.

Exercise 12 - Subtract mixed numbers

Wholes: $4-2=2$. Fractions: $\frac{7}{8}-\frac{3}{8}=\frac{4}{8}$.

Answer: $2\frac{4}{8}$.

Exercise 13 - Subtract with regrouping

$$5\frac{1}{4}=\frac{21}{4} \text{ and } 2\frac{3}{4}=\frac{11}{4}.$$

$$\frac{21}{4}-\frac{11}{4}=\frac{10}{4}=2\frac{2}{4}.$$

Answer: $2\frac{2}{4}$.

Exercise 14 - Whole minus mixed

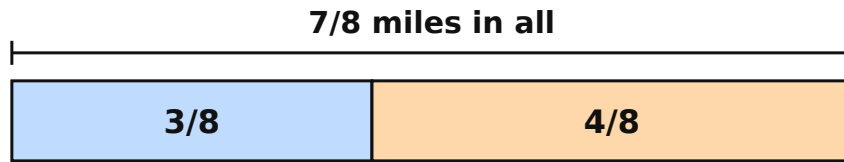
$$6=\frac{30}{5} \text{ and } 2\frac{3}{5}=\frac{13}{5}.$$

$$\frac{30}{5}-\frac{13}{5}=\frac{17}{5}=3\frac{2}{5}.$$

Answer: $3\frac{2}{5}$.

Exercise 15 - Weekend runs

$$\frac{3}{8}+\frac{4}{8}=\frac{7}{8}.$$



The total is $\frac{7}{8}$ mile.

Answer: $\frac{7}{8}$ **mile.**

Exercise 16 - Pizza left

The whole pizza is $\frac{12}{12}$. $\frac{12}{12} - \frac{5}{12} = \frac{7}{12}$.

Answer: $\frac{7}{12}$ **of the pizza.**

Exercise 17 - Two boards

Wholes: $2+1=3$. Fractions: $\frac{3}{10} + \frac{8}{10} = \frac{11}{10} = 1\frac{1}{10}$.

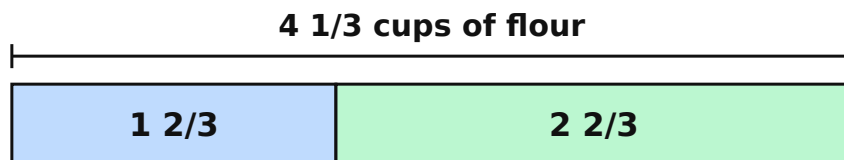
$3 + 1\frac{1}{10} = 4\frac{1}{10}$.

Answer: $4\frac{1}{10}$ **feet.**

Exercise 18 - Flour left

$4\frac{1}{3} = \frac{13}{3}$ and $1\frac{2}{3} = \frac{5}{3}$.

$\frac{13}{3} - \frac{5}{3} = \frac{8}{3} = 2\frac{2}{3}$.



The missing part is $2\frac{2}{3}$ cups.

Answer: $2\frac{2}{3}$ **cups.**

Exercise 19 - Ethan's walk

Wholes: $1+2+1=4$. Fractions: $\frac{1}{4}+\frac{2}{4}+\frac{3}{4}=\frac{6}{4}=1\frac{2}{4}$.

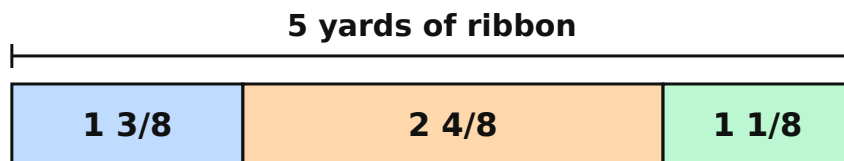
$$4+1\frac{2}{4}=5\frac{2}{4}.$$

Answer: $5\frac{2}{4}$ **miles.**

Exercise 20 - Ribbon

Used: wholes $1+2=3$, fractions $\frac{3}{8}+\frac{4}{8}=\frac{7}{8}$, so $3\frac{7}{8}$ yards.

Left: $5=\frac{40}{8}$ and $3\frac{7}{8}=\frac{31}{8}$, so $\frac{40}{8}-\frac{31}{8}=\frac{9}{8}=1\frac{1}{8}$.



The ribbon that is left is $1\frac{1}{8}$ yards.

Answer: $1\frac{1}{8}$ **yards.**