

Fraction Finish Line

Estimate, add or subtract, and simplify fractions.

GRADE 5 • 5.CE.2.b

5.CE.2.b "Estimate and determine the sum or difference of two fractions (proper or improper) and/or mixed numbers, having like and unlike denominators limited to 2, 3, 4, 5, 6, 8, 10, and 12 (e.g., $58 + 14$, $45 - 23$, $334 + 2512$)..."

NAME _____

DATE _____

PLAN, THEN SOLVE

First, estimate by using benchmark fractions such as 0, $\frac{1}{2}$, and 1. Then rename the fractions with a common denominator, add or subtract the numerators, and simplify the result.

WORKED EXAMPLE

Estimate and find $3\frac{1}{8} + \frac{5}{6}$.

1. Estimate: $3\frac{1}{8}$ is about 3, and $\frac{5}{6}$ is about 1, so the sum is about 4.
2. Use 24: $3\frac{1}{8} = 3\frac{3}{24}$ and $\frac{5}{6} = \frac{20}{24}$.
3. Add: $3\frac{3}{24} + \frac{20}{24} = 3\frac{23}{24}$.

Answer: Estimate: about 4. Exact sum: $3\frac{23}{24}$.

PRACTICE 6 problems

1 Estimate, then find $\frac{2}{3} + \frac{3}{4}$.

ANSWER _____

2 Estimate, then find $\frac{7}{10} - \frac{1}{4}$.

ANSWER _____

3 Estimate, then find $1\frac{2}{5} + \frac{3}{10}$.

ANSWER _____

4 Estimate, then find $2\frac{3}{4} - \frac{5}{6}$.

ANSWER _____

5 Estimate, then find $\frac{9}{4} + \frac{2}{3}$.

ANSWER _____

6 Estimate, then find $4\frac{1}{5} - \frac{7}{10}$.

ANSWER _____

APPLY IT Show your work

- 1** Nia rode her bike $2\frac{3}{4}$ miles on Saturday and $1\frac{5}{6}$ miles on Sunday. Estimate, then find the total distance she rode.

WORK SPACE

ANSWER _____

- 2** A podcast club has $4\frac{1}{2}$ hours for recording. The club uses $1\frac{2}{3}$ hours to record interviews. Estimate, then find how much recording time is left.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Estimate, then find $5\frac{1}{12} - 2\frac{3}{8}$. Show a common denominator and simplify your answer.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Estimate, then find $2/3 + 3/4$.	Estimate: about $1\frac{1}{2}$. Exact sum: $1\frac{5}{12}$.
2	Estimate, then find $7/10 - 1/4$.	Estimate: about $1/2$. Exact difference: $9/20$.
3	Estimate, then find $1\frac{2}{5} + 3/10$.	Estimate: about $1\frac{1}{2}$. Exact sum: $1\frac{7}{10}$.
4	Estimate, then find $2\frac{3}{4} - 5/6$.	Estimate: about 2. Exact difference: $1\frac{11}{12}$.
5	Estimate, then find $9/4 + 2/3$.	Estimate: about 3. Exact sum: $2\frac{11}{12}$.
6	Estimate, then find $4\frac{1}{5} - 7/10$.	Estimate: about $3\frac{1}{2}$. Exact difference: $3\frac{1}{2}$.

PART 2 • APPLY IT

- Estimate: about $4\frac{1}{2}$ miles. Exact distance: $4\frac{7}{12}$ miles.** Add $2\frac{3}{4}$ and $1\frac{5}{6}$ using twelfths. The sum is $55/12$, or $4\frac{7}{12}$.
- Estimate: about 3 hours. Exact time left: $2\frac{5}{6}$ hours.** Subtract $1\frac{2}{3}$ from $4\frac{1}{2}$ using sixths. The difference is $17/6$, or $2\frac{5}{6}$.

CHALLENGE

Estimate: about 3. Exact difference: $2\frac{17}{24}$.

Accept equivalent simplified forms and mixed-number or improper-fraction answers when correct. Estimates may vary if they are reasonable and use benchmark fractions.