Adding and Subtracting Mixed Numbers

Explore ideas and representations

Name _____ **Date** _____ **Score** _____ / 8

QUICK REVIEW

With mixed numbers, combine wholes and like fractional parts, or rename as fractions. $2\frac{1}{8} - 1\frac{3}{8} = \frac{17}{8} - \frac{11}{8} = \frac{6}{8} = \frac{3}{4}$. Regrouping one whole gives $2\frac{1}{8} = 1\frac{9}{8}$.

Worked example

Find $3\frac{1}{6} + 2\frac{2}{6}$.

1. Rename the mixed numbers: $3\frac{1}{6} = \frac{19}{6}$ and $2\frac{1}{3} = \frac{14}{6}$.
2. $\frac{19}{6} + \frac{14}{6} = \frac{33}{6}$ because $19 + 14 = 33$.
3. $33 = 5 \times 6 + 3$, so the result is $5\frac{1}{2}$.

Answer: $5\frac{1}{2}$.

Practice Problems

Show your thinking.

1. Add $2\frac{3}{4} + 1\frac{3}{4}$.

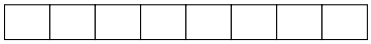
2. Subtract $3\frac{1}{8} - 1\frac{6}{8}$.

3. Find $3\frac{2}{5} + 1\frac{4}{5}$.

4. Find $5\frac{1}{6} - 2\frac{3}{6}$.

5. Fix: $2\frac{1}{6} - 1\frac{4}{6} = 1\frac{3}{6}$.

6. Use a whole-and-parts model to add $1\frac{5}{8} + 2\frac{4}{8}$.



7. Find x if $x + 2\frac{1}{5} = 4\frac{2}{5}$.

8. Explain why $1\frac{3}{4} + 2\frac{1}{4}$ is a whole number.

Answer Key

1. $4\frac{1}{2}$.
2. $1\frac{3}{8}$.
3. $5\frac{1}{5}$.
4. $2\frac{2}{3}$.
5. $\frac{3}{6} = \frac{1}{2}$.
6. $4\frac{1}{8}$.
7. $2\frac{1}{5}$.
8. 4.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Rename the mixed numbers: $2\frac{3}{4} = \frac{11}{4}$ and $1\frac{3}{4} = \frac{7}{4}$.
2. $\frac{11}{4} + \frac{7}{4} = \frac{18}{4}$ because $11 + 7 = 18$.
3. $18 = 4 \times 4 + 2$, so the result is $4\frac{1}{2}$.

Problem 2

1. Rename the mixed numbers: $3\frac{1}{8} = \frac{25}{8}$ and $1\frac{3}{4} = \frac{14}{8}$.
2. $\frac{25}{8} - \frac{14}{8} = \frac{11}{8}$ because $25 - 14 = 11$.
3. $11 = 1 \times 8 + 3$, so the result is $1\frac{3}{8}$.

Problem 3

1. Rename the mixed numbers: $3\frac{2}{5} = \frac{17}{5}$ and $1\frac{4}{5} = \frac{9}{5}$.
2. $\frac{17}{5} + \frac{9}{5} = \frac{26}{5}$ because $17 + 9 = 26$.
3. $26 = 5 \times 5 + 1$, so the result is $5\frac{1}{5}$.

Problem 4

1. Rename the mixed numbers: $5\frac{1}{6} = \frac{31}{6}$ and $2\frac{1}{2} = \frac{15}{6}$.
2. $\frac{31}{6} - \frac{15}{6} = \frac{16}{6}$ because $31 - 15 = 16$.
3. $16 = 2 \times 6 + 4$, so the result is $2\frac{2}{3}$.

Problem 5

1. Regroup $2\frac{1}{6} = 1\frac{7}{6}$.
2. $1\frac{7}{6} - 1\frac{4}{6} = 0\frac{3}{6}$.
3. $\frac{3}{6} + 1\frac{4}{6} = 2\frac{1}{6}$ checks the subtraction.

Problem 6

1. The wholes total $1 + 2 = 3$.
2. The fractions total $\frac{5}{8} + \frac{4}{8} = \frac{9}{8} = 1\frac{1}{8}$.
3. $3 + 1\frac{1}{8} = 4\frac{1}{8}$.

Problem 7

1. Rename the mixed numbers: $4\frac{2}{5} = \frac{22}{5}$ and $2\frac{1}{5} = \frac{11}{5}$.
2. $\frac{22}{5} - \frac{11}{5} = \frac{11}{5}$ because $22 - 11 = 11$.
3. $11 = 2 \times 5 + 1$, so the result is $2\frac{1}{5}$.

Problem 8

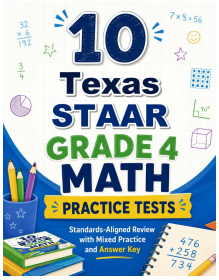
1. The fractional parts give $\frac{3}{4} + \frac{1}{4} = 1$.
2. The original wholes give $1 + 2 = 3$.
3. $3 + 1 = 4$, with no fractional part left.

TESTINAR

Keep Building Grade 4 Math Skills

Choose the practice book matched to your state assessment and turn worksheet practice into a complete test-prep plan.

All Grade 4 books



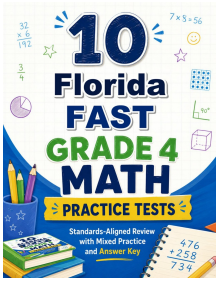
TEXAS STAAR

10 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook



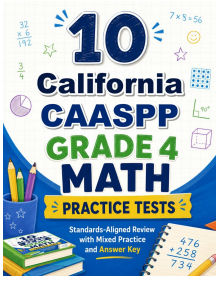
FLORIDA FAST

10 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook



CALIFORNIA CAASPP

10 Full-Length Math Practice Tests

Build Grade 4 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook

Need a different state?
Testinar has Grade 4 math practice books for state assessments across the country.

TESTINAR.COM/GRADES/4