

Additional Practice 7-7

Use Models to Add Mixed Numbers

Another Look!

Draw a model to add $1\frac{7}{8} + 2\frac{1}{4}$.

Remember that you can use what you know about adding fractions to help you add mixed numbers.

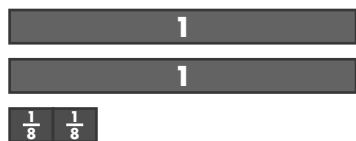


Step 1

Model each addend using fraction strips.



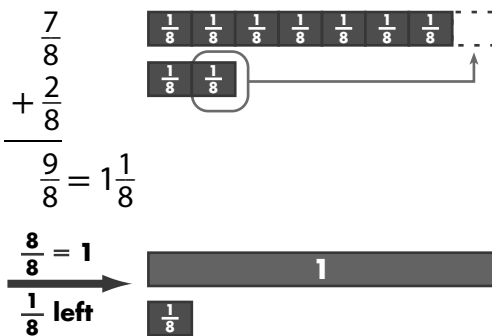
$$1\frac{7}{8}$$



$$2\frac{1}{4} = 2\frac{2}{8}$$

Step 2

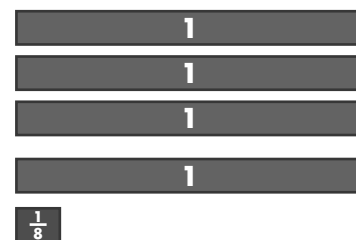
Add the fractions. Regroup if possible.



Step 3

Add the whole numbers to the regrouped fractions. Write the sum.

$$\text{So, } 1\frac{7}{8} + 2\frac{1}{4} = 3\frac{9}{8} = 4\frac{1}{8}.$$



In **1–12**, use fraction strips to find each sum.

1. $3\frac{1}{2} + 1\frac{4}{8}$ **5**

2. $2\frac{5}{12} + 4\frac{1}{4}$ **$6\frac{2}{3}$**

3. $3\frac{3}{4} + 3\frac{1}{2}$ **$7\frac{1}{4}$**

4. $2\frac{5}{8} + 4\frac{3}{4}$ **$7\frac{3}{8}$**

5. $5\frac{1}{3} + 3\frac{5}{6}$ **$9\frac{1}{6}$**

6. $2\frac{1}{2} + 6\frac{3}{4}$ **$9\frac{1}{4}$**

7. $3\frac{1}{4} + 4\frac{7}{8}$ **$8\frac{1}{8}$**

8. $4\frac{5}{6} + 5\frac{7}{12}$ **$10\frac{5}{12}$**

9. $2\frac{1}{4} + 4\frac{5}{8}$ **$6\frac{7}{8}$**

10. $6\frac{1}{2} + 7\frac{3}{4}$ **$14\frac{1}{4}$**

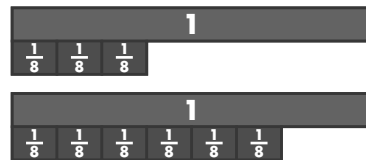
11. $4\frac{5}{8} + 6\frac{1}{2}$ **$11\frac{1}{8}$**

12. $2\frac{1}{3} + 4\frac{5}{12}$ **$6\frac{3}{4}$**



13. Ken used $1\frac{3}{8}$ cups of walnuts and $1\frac{3}{4}$ cups of raisins to make trail mix. How many total cups of trail mix did he make?

$3\frac{1}{8}$ cups



14. Ken added $\frac{5}{8}$ cup more walnuts to the trail mix. How many cups of trail mix does he have? $3\frac{3}{4}$ cups

15. **Higher Order Thinking** Kayla walked $1\frac{1}{4}$ miles from home to school. Then, she walked $1\frac{3}{4}$ miles from school to the store and $2\frac{1}{2}$ miles from the store to the library. How many miles did Kayla walk from school to the library?

$4\frac{1}{4}$ miles

16. A painter mixes $\frac{1}{4}$ gallon of red paint, 3 quarts of yellow paint, and 2 quarts of white paint. How many quarts of paint are in the mixture?

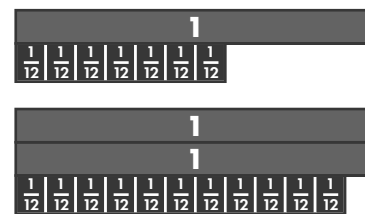
6 quarts

Remember,
4 quarts = 1 gallon.



17. **Model with Math** Rachel has a board that is $1\frac{7}{12}$ feet long and another board that is $2\frac{11}{12}$ feet long. Write an expression Rachel can use to find the total length in feet of the two boards.

$1\frac{7}{12} + 2\frac{11}{12}$



18. Lori went to the movies. She spent \$9.50 for a movie ticket, \$5.50 for a box of popcorn, and \$2.25 for a drink. How much did Lori spend in all? Show your work.

$\$17.25$; $\$9.50 + \$5.50 + \$2.25 = \17.25

19. **Construct Arguments** Jane is adding $3\frac{1}{4} + 2\frac{7}{8}$ using fraction strips. How can she rename the sum of the fraction parts of the problem? Explain your thinking.

$1\frac{1}{8}$; $\frac{1}{4} + \frac{7}{8} = \frac{2}{8} + \frac{7}{8} = \frac{9}{8}$, and $\frac{9}{8}$ is 1 whole and $\frac{1}{8}$.

Assessment Practice

20. McKenna spends $1\frac{3}{4}$ hours mopping the floors and $3\frac{3}{8}$ hours mowing and weeding the yard. How many hours does she spend on her chores?

- (A) 4 hours
(B) $4\frac{1}{8}$ hours
(C) 5 hours
(D) $5\frac{1}{8}$ hours

21. Jackie's rain gauge showed $2\frac{2}{5}$ inches on April 15 and $5\frac{2}{10}$ inches on April 30. How many inches of rain fell on those two days?

- (A) 7 in.
(B) $7\frac{6}{10}$ in.
(C) $7\frac{4}{5}$ in.
(D) 8 in.