

## Homework & Practice 9-1

### Model Addition of Fractions

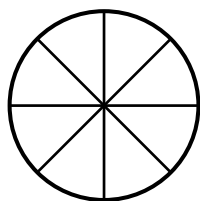
#### Another Look!

Eight friends went out to lunch. Four of them had pizza. Two had hamburgers and two had soup. What fraction of the group had either pizza or soup?

You can use a circle fraction model to add fractions.

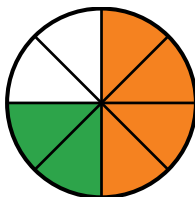


Divide a circle into eighths to represent each of the 8 people in the group.



Four people had pizza. Shade 4 of the sections to represent  $\frac{4}{8}$ .

Two people had soup. Shade 2 more sections to represent  $\frac{2}{8}$ .



Count the number of  $\frac{1}{8}$  sections. There are six  $\frac{1}{8}$  sections shaded. So,  $\frac{6}{8}$  of the group had either pizza or soup.

$$\frac{4}{8} + \frac{2}{8} = \frac{6}{8}$$

For **1–12**, find each sum. Use fraction strips or other tools.

1.  $\frac{1}{5} + \frac{1}{5}$

2.  $\frac{4}{6} + \frac{1}{6}$

3.  $\frac{5}{8} + \frac{2}{8}$

4.  $\frac{2}{12} + \frac{2}{12}$

5.  $\frac{2}{5} + \frac{3}{5}$

6.  $\frac{2}{10} + \frac{3}{10}$

7.  $\frac{5}{8} + \frac{3}{8}$

8.  $\frac{3}{10} + \frac{1}{10}$

9.  $\frac{3}{4} + \frac{1}{4}$

10.  $\frac{5}{10} + \frac{4}{10}$

11.  $\frac{1}{6} + \frac{1}{6} + \frac{1}{6}$

12.  $\frac{1}{12} + \frac{5}{12} + \frac{2}{12}$

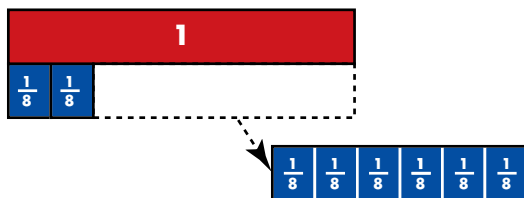
13. **MP.3 Critique Reasoning** When Jared found  $\frac{1}{5} + \frac{2}{5}$ , he wrote the sum  $\frac{3}{10}$ . Is Jared correct? Explain.

14. **Number Sense** Leah wrote 2 different fractions with the same denominator. Both fractions were less than 1. Can their sum equal 1? Can their sum be greater than 1? Explain.

15. Sasha has a box of antique letters. She wants to give an equal number of letters to each of her 5 friends. How many antique letters will each friend receive?



16. **MP.4 Model with Math** Sandy made 8 friendship bracelets. She gave 1 bracelet to her best friend and 5 bracelets to her friends on the tennis team. Use the model to find the fraction that represents the total number of bracelets Sandy gave away.



17. **Higher Order Thinking** Julia writes 2 fractions with the same denominator that have numerators 5 and 7. What could the denominator be if the sum is less than 1? Equal to 1? Greater than 1?

### Common Core Assessment

18. Billy did  $\frac{1}{6}$  of his homework on Friday. He did  $\frac{1}{6}$  more on Saturday. Billy still had  $\frac{4}{6}$  to finish. How much of his homework did Billy do on Friday and Saturday?

- (A)  $\frac{2}{6}$                       (C)  $\frac{4}{6}$   
 (B)  $\frac{3}{6}$                       (D)  $\frac{5}{6}$

19. Roberto shares a bag of almonds with 2 friends. He shares  $\frac{1}{8}$  bag with Jeremy and  $\frac{2}{8}$  bag with Emily. He eats  $\frac{3}{8}$  of the almonds himself. What fraction of the almonds do Roberto and his friends eat?

- (A)  $\frac{1}{12}$                       (C)  $\frac{6}{8}$   
 (B)  $\frac{3}{8}$                       (D)  $\frac{7}{8}$