



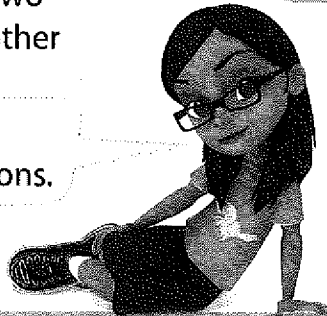
Homework 11-1

Modeling Addition of Fractions

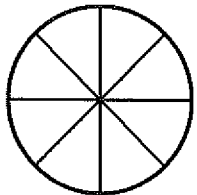
Another Look!

Eight friends went out to eat 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 model to add fractions.

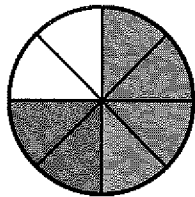


Divide a circle into eighths to represent each of the eight people in the group.



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

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



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

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

Write the sum in simplest form.

$$\frac{6 \div 2}{8 \div 2} = \frac{3}{4}$$

In 1 through 12, find each sum. You may use fraction strips or models to help. Simplify, if possible.

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

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

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

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

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

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

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

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

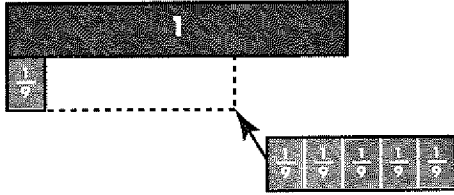
9. $\frac{3}{4} + \frac{1}{4}$

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. Represent Sandy made 9 friendship bracelets. She gave 1 bracelet to her best friend and 5 bracelets to her friends on the tennis team. Use the drawing to find the fraction that represents the number of bracelets Sandy gave away.

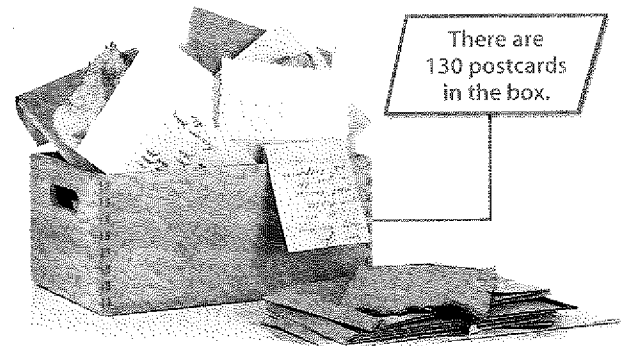


14. Extend Your Thinking Billy did some of his homework on Friday. He did $\frac{1}{6}$ of his homework on Saturday. Billy still had $\frac{4}{6}$ of his homework to finish. How much of his homework did Billy do on Friday?

15. Explain To find $\frac{1}{5} + \frac{2}{5}$, Jared wrote the answer $\frac{3}{10}$. Is Jared correct? Explain.

16. Number Sense Leah wrote two 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 why or why not.

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



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

19. Extend Your Thinking Julia writes two 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?

- A $\frac{1}{24}$ of the bag
 B $\frac{3}{8}$ of the bag
 C $\frac{6}{8}$ of the bag
 D $\frac{6}{24}$ of the bag

Name _____

★
Solve & Share
★

Karyn has $\frac{11}{8}$ pounds of chili to put into three bowls. The amount of chili in each bowl does not have to be the same. How much could she put into each bowl? *Solve this problem any way you choose.*

You can use representations. How can you represent the total amount of chili? *Show your work in the space below!*



Lesson 11-2

Decomposing Fractions

TEKS 4.3B Decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations. Also, 4.3A. Mathematical Process Standards 4.1A, 4.1C, 4.1D, 4.1E, 4.1F, 4.1G

Digital Resources at PearsonTexas.com



Solve



Learn



Glossary



Check



Tools



Games

Look Back!

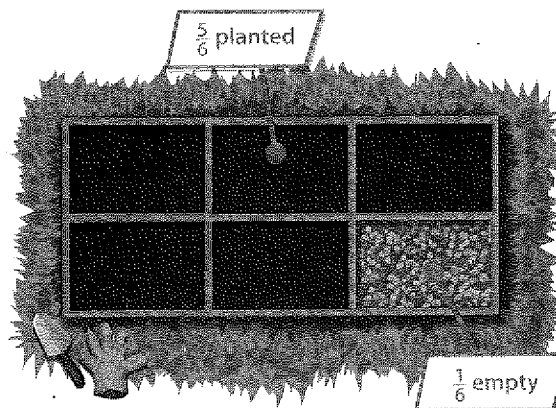
Connect Ideas Which of the fractions that you found are in simplest form?

How Can You Represent a Fraction in a Variety of Ways?

Decomposing means to break into parts.

Charlene wants to leave $\frac{1}{6}$ of her garden empty. What are some different ways she can plant the rest of her garden?

The fraction of the garden that Charlene will plant can be broken apart in more than one way.

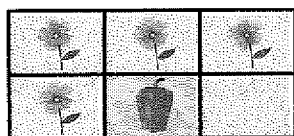


Decompose the fraction into parts.

One Way

She could plant 4 sections of blue flowers and 1 section of red peppers.

$\frac{5}{6}$ is $\frac{4}{6}$ and $\frac{1}{6}$.

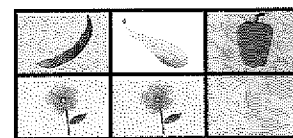


$$\frac{5}{6} = \frac{4}{6} + \frac{1}{6}$$

Another Way

She could plant 1 section of green beans, 1 section of yellow squash, 1 section of red peppers, and 2 sections of blue flowers.

$\frac{5}{6}$ is $\frac{1}{6}$ and $\frac{1}{6}$ and $\frac{1}{6}$ and $\frac{2}{6}$.



$$\frac{5}{6} = \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{2}{6}$$

Do You Understand?

Convince Me! Draw pictures like the ones above to show why both of these equations are true.

$$\frac{5}{6} = \frac{3}{6} + \frac{2}{6}$$

$$\frac{5}{6} = \frac{1}{6} + \frac{2}{6} + \frac{2}{6}$$