Decomposing Fractions

Home Link 5-1

NAME DATE TIME

Family Note In class today your child learned to decompose fractions into smaller parts. For example, $\frac{5}{6}$ can be decomposed into $\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}$, $\frac{2}{6}+\frac{3}{6}$, $\frac{1}{6}+\frac{4}{6}$, and so on.

Complete the name-collection boxes using equations.

SRB 125-127

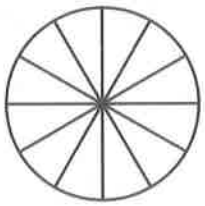
① $\frac{11}{5}$

② $1\frac{3}{8}$

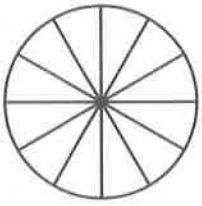
③ Decompose $\frac{8}{12}$ in more than one way into a sum of fractions with the same denominator.

Record each decomposition with an equation and justify it by shading the circle.

a. Equation: _____



b. Equation: _____



Practice

④ $9 * 785 =$ _____

⑤ $461 * 7 =$ _____

⑥ $644 * 4 =$ _____

⑦ _____ $= 39 * 50$

What Is the Whole?

Home Link 5-2

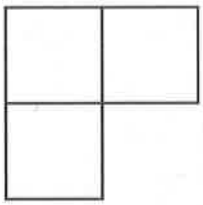
NAME DATE TIME

For Problems 1-3, use your Geometry Template or sketch the shapes.

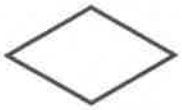
SRB 125-126

① Suppose  is $\frac{1}{4}$. Draw each of the following:

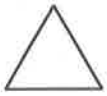
Example: $\frac{3}{4}$



a. 1 **b.** $1\frac{1}{2}$ **c.** 2

② Suppose  is $\frac{2}{3}$. Draw each of the following:

a. $\frac{1}{3}$ **b.** 1 **c.** $\frac{4}{3}$ **d.** 2

③ Suppose  is $\frac{1}{3}$. Draw each of the following:

a. $\frac{3}{3}$ **b.** 2

c. $\frac{5}{3}$ **d.** $1\frac{1}{3}$

Practice

④ $\frac{4}{5} = \frac{8}{\square}$ ⑤ $\frac{3}{\square} = \frac{9}{12}$ ⑥ $\frac{9}{10} = \frac{\square}{100}$

Adding Fractions

Home Link 5-3

NAME DATE TIME

Solve the number stories. Use a different strategy for each one.

SRB 47, 160–161

① The park department wants to have new trees planted. They agreed that $\frac{1}{10}$ of the trees will be oak, $\frac{3}{10}$ will be pine, and $\frac{2}{10}$ will be willow. They are undecided about the rest. What fraction of the trees will be oak, willow, or pine?

a. Fill in the whole box.

Whole

b. Number model with unknown:

_____

c. One way to solve a fraction addition problem:

d. Answer (with unit): _____

② The Patels have a DVD collection. Three-eighths of the DVDs are animated. Two-eighths of them are mysteries. One-eighth are comedies. The rest are about travel. What fraction of the DVDs are *not* about travel?

a. Fill in the whole box.

Whole

b. Number model with unknown:

_____

c. A different way to solve a fraction addition problem:

_____

d. Answer (with unit): _____

Add.

③ $\frac{2}{5} + \frac{1}{5} =$ _____

④ $\frac{1}{2} + \frac{3}{2} =$ _____

⑤ $\frac{5}{6} + \frac{5}{6} =$ _____

⑥ $\frac{1}{3} + \frac{2}{3} + \frac{1}{3} =$ _____

Practice

Represent the fractions as decimals.

⑦ $\frac{4}{10} =$ _____ ⑧ $\frac{40}{100} =$ _____ ⑨ $\frac{6}{10} =$ _____ ⑩ $\frac{6}{100} =$ _____

Mixed-Number Addition

Home Link 5-4

NAME DATE TIME

SRB 47, 162-163

Solve the number stories. Use a different strategy for each one.

(1) The art class had a box filled with balls of yarn. The students used $6\frac{2}{3}$ balls for a project. There are now $2\frac{2}{3}$ balls left in the box. How many balls of yarn did the art class start with?

a. Fill in the whole box.

Whole

b. Number model with unknown:

_____

c. One way to solve a mixed-number addition problem:

d. Answer (with unit): _____

(2) Mrs. Meyers is growing vines along the sides of her house. On the west side the vines are $2\frac{4}{10}$ meters tall. On the east side the vines are $5\frac{8}{10}$ meters taller than the ones on the west side. How tall are the vines on the east side?

a. Fill in the whole box.

Whole

b. Number model with unknown:

_____

c. A different way to solve a mixed-number addition problem:

d. Answer (with unit): _____

Add. Show your work.

(3) $5\frac{2}{6} + 3\frac{1}{6} =$ _____

(4) $1\frac{5}{8} + 2\frac{3}{8} =$ _____

(5) $3\frac{3}{4} + 2\frac{3}{4} =$ _____

(6) $3\frac{2}{5} + 1\frac{4}{5} + 2\frac{3}{5} =$ _____

Practice

(7) $837 * 6 =$ _____

(8) _____ $= 468 * 5$

(9) _____ $= 364 * 3$

(10) $56 * 70 =$ _____

Adding Tenths and Hundredths

Home Link 5-5

NAME DATE TIME

Use what you know about equivalent fractions to add. Write an equation to show your work.

SRB 166-168

① 2 tenths + 15 hundredths

Equation (in words): _____

② $\frac{68}{100} + \frac{3}{10}$

Equation: _____

③ $\frac{1}{10} + \frac{50}{100}$

Equation: _____

④ $\frac{4}{10} + \frac{60}{100} + \frac{3}{10} + \frac{81}{100}$

Equation: _____

⑤ $1\frac{3}{10} + 5\frac{64}{100}$

Equation: _____

⑥ $3\frac{22}{100} + 2\frac{8}{10}$

Equation: _____

⑦ $\frac{15}{10} + \frac{78}{100}$

Equation: _____

⑧ Nicholas shaded $\frac{40}{100}$ of his hundreds grid. Victor shaded $\frac{5}{10}$ of his grid.

Who shaded more? _____

How much did they shade in all? _____ of a grid

Practice

Write three equivalent fractions.

⑨ $\frac{1}{2} =$ _____

⑩ $\frac{1}{3} =$ _____

⑪ $\frac{1}{4} =$ _____

⑫ $\frac{1}{5} =$ _____

Fraction Error Finder

Home Link 5-6

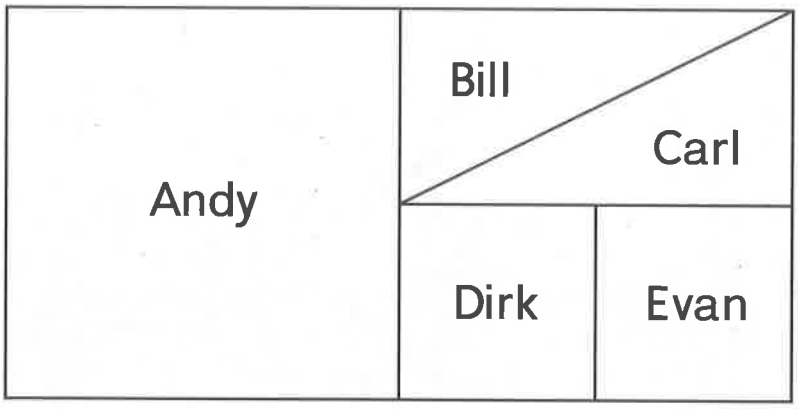
NAME DATE TIME

SRB 166-167

Consider this problem:

A king owns land outside of his castle.

He has partitioned the land to give as gifts to his 5 sons.



What fraction of the land did the king give to each of his sons?

Here is Zeke's solution:

Andy got $\frac{1}{2}$ *Bill got* $\frac{1}{5}$ *Carl got* $\frac{1}{5}$

Dirk got $\frac{1}{8}$ *Evan got* $\frac{1}{8}$

(1) Identify Zeke's two errors, correct them, and explain why your answer is correct.

(2) Write a fraction addition equation to represent the correct answers and show the sum of the pieces of land.

_____

Practice

Use U.S. traditional addition and subtraction.

(3) 8,936 + 6,796 = _____

(4) 635 − 392 = _____

(5) 6,386 + 4,205 = _____

(6) 900 − 463 = _____