

Lesson 42

EXERCISE 1: NUMBER FAMILIES

MULTIPLICATION/DIVISION—DIVISION FACTS

- a. Open your workbook to Lesson 42 and find part 1. ✓

(Teacher reference:)

a. $3 \overline{) \quad 8 \rightarrow} \quad$ d. $\quad \overline{) \quad 4 \rightarrow} 12 \quad$ g. $9 \overline{) \quad 4 \rightarrow} \quad$ j. $3 \overline{) \quad 18 \rightarrow}$
 b. $\quad \overline{) \quad 6 \rightarrow} 36 \quad$ e. $9 \overline{) \quad 81 \rightarrow}$ h. $\quad \overline{) \quad 8 \rightarrow} 24 \quad$ k. $2 \overline{) \quad 9 \rightarrow} \quad$
 c. $9 \overline{) \quad 6 \rightarrow} \quad$ f. $3 \overline{) \quad 7 \rightarrow} \quad$ i. $\quad \overline{) \quad 8 \rightarrow} 72 \quad$ l. $\quad \overline{) \quad 7 \rightarrow} 63$

One of the numbers in each family is missing. You'll say the problem and the answer for the missing number in each family. Then you'll complete the families.

- Family A. Say the problem for the missing number. (Signal.) 3×8 .
 - What's 3×8 ? (Signal.) 24.
- b. (Repeat the following tasks for families B through L:)

Say the problem for family ____.	What's ____?		
B	$36 \div 6$	$36 \div 6$	6
C	9×6	9×6	54
D	$12 \div 4$	$12 \div 4$	3
E	$81 \div 9$	$81 \div 9$	9
F	3×7	3×7	21
G	9×4	9×4	36
H	$24 \div 8$	$24 \div 8$	3

(If students were 100% on families A through H, skip to step c.)

I	$72 \div 8$	$72 \div 8$	9
J	$18 \div 3$	$18 \div 3$	6
K	2×9	2×9	18
L	$63 \div 7$	$63 \div 7$	9

(Repeat families that were not firm.)

- c. Write the missing number in each family. Put your pencil down when you've completed the families in part 1.
(Observe students and give feedback.)

- d. Check your work. You'll tell me the missing number you wrote for each family.

- Family A. (Signal.) 24.
- (Repeat for:) B, 6; C, 54; D, 3; E, 9; F, 21; G, 36; H, 3; I, 9; J, 6; K, 18; L, 9.

- e. Find part 2 in your workbook. ✓

(Teacher reference:)

a. $8 \times 3 =$ g. $5 \times 5 =$ m. $4 \overline{) 16}$ s. $7 \overline{) 49}$ y. $5 \overline{) 10}$
 b. $9 \times 4 =$ h. $3 \overline{) 27}$ n. $9 \times 6 =$ t. $2 \overline{) 14}$ z. $7 \times 9 =$
 c. $9 \overline{) 18}$ i. $8 \overline{) 64}$ o. $6 \overline{) 36}$ u. $9 \overline{) 90}$ A. $3 \overline{) 27}$
 d. $3 \overline{) 21}$ j. $8 \times 9 =$ p. $8 \overline{) 72}$ v. $9 \times 9 =$ B. $9 \times 5 =$
 e. $4 \times 4 =$ k. $3 \times 7 =$ q. $3 \times 6 =$ w. $5 \times 8 =$ c. $9 \overline{) 81}$
 f. $3 \overline{) 9}$ l. $10 \overline{) 100}$ r. $10 \overline{) 80}$ x. $9 \overline{) 54}$ D. $5 \overline{) 45}$

These multiplication and division problems are from multiplication families you know. You'll read some of the problems and tell me if the answer is the big number or a small number. Then you'll work all of the problems.

- f. Read problem A. (Signal.) 8×3 .
- Is the answer the big number or a small number? (Signal.) *The big number.*
 - What's 8×3 ? (Signal.) 24.
- g. (Repeat the following tasks with problems B through H:)

Read problem ____.	Is the answer the big number or a small number?		What's ____?	
B	9×4	<i>The big number.</i>	9×4	36
C	$18 \div 9$	<i>A small number.</i>	$18 \div 9$	2
D	$21 \div 3$	<i>A small number.</i>	$21 \div 3$	7
E	4×4	<i>The big number.</i>	4×4	16
F	$9 \div 3$	<i>A small number.</i>	$9 \div 3$	3
G	5×5	<i>The big number.</i>	5×5	25
H	$27 \div 3$	<i>A small number.</i>	$27 \div 3$	9

(Repeat problems that were not firm.)

- h. Work all the problems in part 2. You have two minutes.
- Get ready. Go.
(Observe students and give feedback.)
 - (After 2 minutes say:) Stop.

- i. Check your work. You'll read the fact for each problem.
- **Problem A.** (Signal.) $8 \times 3 = 24$.
 - (Repeat for:) B, $9 \times 4 = 36$; C, $18 \div 9 = 2$; D, $21 \div 3 = 7$; E, $4 \times 4 = 16$; F, $9 \div 3 = 3$; G, $5 \times 5 = 25$; H, $27 \div 3 = 9$; I, $64 \div 8 = 8$; J, $8 \times 9 = 72$; K, $3 \times 7 = 21$; L, $100 \div 10 = 10$; M, $16 \div 4 = 4$; N, $9 \times 6 = 54$; O, $36 \div 6 = 6$; P, $72 \div 8 = 9$; Q, $3 \times 6 = 18$; R, $80 \div 10 = 8$; S, $49 \div 7 = 7$; T, $14 \div 2 = 7$; U, $90 \div 9 = 10$; V, $9 \times 9 = 81$; W, $5 \times 8 = 40$; X, $54 \div 9 = 6$; Y, $10 \div 5 = 2$; Z, $7 \times 9 = 63$; Capital A, $27 \div 3 = 9$; B, $9 \times 5 = 45$; C, $81 \div 9 = 9$; D, $45 \div 5 = 9$.

EXERCISE 2: FRACTIONS

ADDING WHOLE NUMBERS AND FRACTIONS

REMEDY

- a. (Display:) [42:2A]

$$7 + \frac{5}{2}$$

- (Point to $7 + \frac{5}{2}$.) Read this problem. (Signal.) $7 + 5/2$.
- Do 7 and $5/2$ have the same bottom number? (Signal.) No.
- So you can't work the problem unless you rewrite the whole number as a fraction. What bottom number will you write? (Signal.) 2.
- So you rewrite 7 as a fraction with a bottom number of 2.

(Add to show:) [42:2B]

$$\frac{7}{2} + \frac{5}{2}$$

- Raise your hand when you know the top number of the fraction. ✓
- What's the top number? (Signal.) 14.

(Add to show:) [42:2C]

$$\frac{14}{2} + \frac{5}{2}$$

- c. Read the fraction addition problem. (Signal.) $14/2 + 5/2$.
- Can you work that problem? (Signal.) Yes.
 - What's $14/2 + 5/2$? (Signal.) $19/2$.

(Add to show:) [42:2D]

$$\frac{14}{2} + \frac{5}{2} = \frac{19}{2}$$

- What does $7 + 5/2$ equal? (Signal.) $19/2$.

d. (Display:) [42:2E]

$$3 + \frac{2}{9}$$

- (Point to $3 + \frac{2}{9}$.) Read this problem. (Signal.) $3 + 2/9$.
 - Can you add $3 + 2/9$? (Signal.) No.
 - So you have to rewrite 3 as a fraction. What's the bottom number of that fraction? (Signal.) 9.
- (Add to show:) [42:2F]

$$\frac{3}{9} + \frac{2}{9}$$

- Raise your hand when you know the top number of the fraction. ✓
- What's the top number? (Signal.) 27.

(Add to show:) [42:2G]

$$\frac{27}{9} + \frac{2}{9}$$

- e. Read the fraction addition problem. (Signal.) $27/9 + 2/9$.

- What's $27/9 + 2/9$? (Signal.) $29/9$.

(Add to show:) [42:2H]

$$\frac{27}{9} + \frac{2}{9} = \frac{29}{9}$$

- Read the equation. (Signal.) $27/9 + 2/9 = 29/9$.
- What does $3 + 2/9$ equal? (Signal.) $29/9$. (If students are 100% skip to Exercise 3.)

f. (Display:) [42:2I]

$$4 + \frac{5}{3}$$

- (Point to $4 + \frac{5}{3}$.) Read this problem. (Signal.) $4 + 5/3$.
- Can you add $4 + 5/3$? (Signal.) No.
- So you have to rewrite 4 as a fraction. What's the bottom number of that fraction? (Signal.) 3. (Add to show:) [42:2J]

$$\frac{4}{3} + \frac{5}{3}$$

- Raise your hand when you know the top number of the fraction. ✓
- What's the top number? (Signal.) 12. (Add to show:) [42:2K]

$$\frac{12}{3} + \frac{5}{3}$$

- g. Read the fraction addition problem. (Signal.) $12/3 + 5/3$.
- What's $12/3 + 5/3$? (Signal.) $17/3$. (Add to show:) [42:2L]

$$\frac{12}{3} + \frac{5}{3} = \frac{17}{3}$$

- Read the equation. (Signal.) $12/3 + 5/3 = 17/3$.
- What does $4 + 5/3$ equal? (Signal.) $17/3$.

EXERCISE 3: MULTIPLICATION BY TENS NUMBERS

REMEDY

- a. Find part 3 in your workbook. ✓
(Teacher reference:)

R Part I

a. $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$ b. $\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$ c. $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$ d. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$

e. $\begin{array}{r} 7 \\ \times 50 \\ \hline \end{array}$ f. $\begin{array}{r} 2 \\ \times 80 \\ \hline \end{array}$ g. $\begin{array}{r} 7 \\ \times 90 \\ \hline \end{array}$ h. $\begin{array}{r} 5 \\ \times 60 \\ \hline \end{array}$

The problems in the top row do not multiply by tens numbers. Below are problems that multiply by tens numbers.

- b. For each problem in the top row, you'll read the problem and say the answer.
- Problem A. (Signal.) $7 \times 5 = 35$.
 - Problem B. (Signal.) $2 \times 8 = 16$.
 - Problem C. (Signal.) $7 \times 9 = 63$.
 - Problem D. (Signal.) $5 \times 6 = 30$.

- c. Write answers to the problems in the top row. (Observe students and give feedback.)
- d. Touch and read problem E. (Signal.) 7×50 .
- Does problem E multiply by a tens number? (Signal.) Yes.
 - What tens number? (Signal.) 50. So you'll write zero in the ones column. Then you'll work the problem 7×5 .
 - What will you write in the ones column? (Signal.) Zero.
 - Then you'll work what problem? (Signal.) 7×5 . (Repeat until firm.)
- e. Work problem E. (Observe students and give feedback.)
- Problem E: $7 \times 5 = 35$. So what's 7×50 ? (Signal.) 350. (Display:) [42:3A]

$$\begin{array}{r} e. \quad 7 \\ \times 50 \\ \hline 350 \end{array}$$

- Here's what you should have for problem E.
- f. Touch and read problem F. (Signal.) 2×80 .
- Does problem F multiply by a tens number? (Signal.) Yes.
 - What will you write in the ones column? (Signal.) Zero.
 - Then you'll work what problem? (Signal.) 2×8 .
- g. Work problem F. (Observe students and give feedback.)
- Problem F: $2 \times 8 = 16$. So what's 2×80 ? (Signal.) 160. (If students are 100%, skip to step i.)
- h. Touch and read problem G. (Signal.) 7×90 .
- Does problem G multiply by a tens number? (Signal.) Yes.
 - So what will you write in the ones column? (Signal.) Zero.
 - Then you'll work what problem? (Signal.) 7×9 .
- i. Work problem G. (Observe students and give feedback.)
- Problem G: $7 \times 9 = 63$. So what's 7×90 ? (Signal.) 630. (If students are 100%, skip to step k.)
- j. Touch and read problem H. (Signal.) 5×60 .
- What will you write in the ones column? (Signal.) Zero.
 - Then you'll work what problem? (Signal.) 5×6 .

- k. Work problem H.
(Observe students and give feedback.)
- Problem H: $5 \times 6 = 30$. So what's 5×60 ?
(Signal.) 300.
(Display:) [42:3B]

$$\begin{array}{r} \text{f.} \quad 2 \\ \times 80 \\ \hline 160 \end{array} \quad \begin{array}{r} \text{g.} \quad 7 \\ \times 90 \\ \hline 630 \end{array} \quad \begin{array}{r} \text{h.} \quad 5 \\ \times 60 \\ \hline 300 \end{array}$$

Here's what you should have for problems F, G, and H.

EXERCISE 4: DIVISION

WORKING REMAINDER PROBLEMS

- a. Find part 4 in your workbook. ✓
(Teacher reference:)
- a. $9 \overline{)37}$ b. $2 \overline{)11}$ c. $4 \overline{)15}$ d. $3 \overline{)22}$
- These are division problems that have leftovers.
- Read problem A. (Signal.) $37 \div 9$.
 - Can you divide 37 by 9? (Signal.) No.
 - Write the largest part below and write the leftovers. Stop when you've done that much. (Observe students and give feedback.)
 - What's the largest part of 37 you can divide by 9? (Signal.) 36.
 - How many leftovers are there? (Signal.) 1.
(Display:) [42:4A]

$$\text{a. } 9 \overline{)37} \begin{array}{r} 4 \\ \hline 36 \\ \hline 1 \end{array}$$

Here's the largest part and the leftovers.

- b. Now you have to work a division problem and write the answer above.
- Say the division problem you'll work. (Signal.) $36 \div 9$.
 - Write the answer. ✓
(Add to show:) [42:4B]

$$\text{a. } 9 \overline{)37} \begin{array}{r} 4 \quad 1 \\ \hline 36 \\ \hline 1 \end{array}$$

Here's what you should have for problem A. 37 divided by 9 equals 4 and 1 leftover.

- c. Read problem B. (Signal.) $11 \div 2$.
- Can you divide 11 by 2? (Signal.) No.
 - Write the largest part below and write the remainder. The remainder is the number for the leftovers. Stop when you've done that much. (Observe students and give feedback.)
 - What's the largest part of 11 you can divide by 2? (Signal.) 10.
 - How many leftovers are there? (Signal.) 1.
(Display:) [42:4C]

$$\text{b. } 2 \overline{)11} \begin{array}{r} 5 \\ \hline 10 \\ \hline 1 \end{array}$$

- d. Now you have to work a division problem and write the answer above.
- Say the division problem you'll work. (Signal.) $10 \div 2$.
 - Write the answer. ✓
(Add to show:) [42:4D]

$$\text{b. } 2 \overline{)11} \begin{array}{r} 5 \quad 1 \\ \hline 10 \\ \hline 1 \end{array}$$

Here's what you should have for problem B.

- e. Work problem C. First write the largest part and the remainder. Then write the answer to the division problem you work. (Observe students and give feedback.)
- f. Check your work.
- Problem C is $15 \div 4$. Say the division problem you worked. (Signal.) $12 \div 4$.
 - What's the answer? (Signal.) 3.
 - How many leftovers are there? (Signal.) 3.
(Display:) [42:4E]

$$\text{c. } 4 \overline{)15} \begin{array}{r} 3 \quad 3 \\ \hline 12 \\ \hline 3 \end{array}$$

Here's what you should have for problem C.

- g. Work problem D. First write the largest part and the remainder. Then write the answer to the division problem you work. (Observe students and give feedback.)

- h. Check your work.
- Problem D is $22 \div 3$. Say the division problem you worked. (Signal.) $21 \div 3$.
 - What's the answer? (Signal.) 7.
 - How many leftovers are there? (Signal.) 1. (Display:) [42:4F]

$$d. 3 \overline{) 22} \begin{array}{r} 7 \\ 21 \\ \hline 1 \end{array}$$

Here's what you should have for problem D.

EXERCISE 5: MULTIPLICATION FACTS

- a. Find part 5 in your workbook. ✓
(Teacher reference:)
- | | | | | |
|-------------------|-------------------|--------------------|---------------------|-------------------|
| a. $8 \times 9 =$ | g. $9 \times 4 =$ | m. $3 \times 3 =$ | s. $9 \times 10 =$ | y. $9 \times 7 =$ |
| b. $3 \times 7 =$ | h. $8 \times 0 =$ | n. $5 \times 7 =$ | t. $3 \times 9 =$ | z. $8 \times 5 =$ |
| c. $4 \times 6 =$ | i. $6 \times 4 =$ | o. $3 \times 8 =$ | u. $7 \times 3 =$ | A. $4 \times 4 =$ |
| d. $7 \times 9 =$ | j. $9 \times 9 =$ | p. $4 \times 9 =$ | v. $9 \times 2 =$ | B. $6 \times 9 =$ |
| e. $8 \times 3 =$ | k. $4 \times 3 =$ | q. $6 \times 3 =$ | w. $10 \times 10 =$ | c. $9 \times 8 =$ |
| f. $7 \times 2 =$ | l. $6 \times 6 =$ | r. $7 \times 10 =$ | x. $1 \times 6 =$ | D. $3 \times 6 =$ |

Some of these multiplication problems are from families we worked with in this lesson. You'll read some of the problems and say the answer.

- Read problem A. (Signal.) 8×9 .
 - What's the answer? (Signal.) 72.
- b. (Repeat the following tasks for problems B through L:)

Problem ___		What's the answer?
B	3×7	21
C	4×6	24
D	7×9	63
E	8×3	24

(If students are 100%, skip to step c.)

F	7×2	14
G	9×4	36
H	8×0	0
I	6×4	24
J	9×9	81
K	4×3	12
L	6×6	36

(Repeat problems that were not firm.)

- c. Write all of the answers to the problems in part 5. You have two minutes.
- Get ready. Go. (Observe students and give feedback.)
 - (After 2 minutes say:) Stop.

- d. Check your work. You'll read the fact for each problem.
- Problem A. (Signal.) $8 \times 9 = 72$.
 - (Repeat for:) B, $3 \times 7 = 21$; C, $4 \times 6 = 24$; D, $7 \times 9 = 63$; E, $8 \times 3 = 24$; F, $7 \times 2 = 14$; G, $9 \times 4 = 36$; H, $8 \times 0 = 0$; I, $6 \times 4 = 24$; J, $9 \times 9 = 81$; K, $4 \times 3 = 12$; L, $6 \times 6 = 36$; M, $3 \times 3 = 9$; N, $5 \times 7 = 35$; O, $3 \times 8 = 24$; P, $4 \times 9 = 36$; Q, $6 \times 3 = 18$; R, $7 \times 10 = 70$; S, $9 \times 10 = 90$; T, $3 \times 9 = 27$; U, $7 \times 3 = 21$; V, $9 \times 2 = 18$; W, $10 \times 10 = 100$; X, $1 \times 6 = 6$; Y, $9 \times 7 = 63$; Z, $8 \times 5 = 40$; Capital A, $4 \times 4 = 16$; B, $6 \times 9 = 54$; C, $9 \times 8 = 72$; D, $3 \times 6 = 18$.

EXERCISE 6: FRACTIONS

AS DIVISION

REMEDY

- a. (Display:) [42:6A]

$$\frac{9}{6} \qquad \frac{3}{10}$$

$$\frac{12}{4} \qquad \frac{45}{6}$$

- (Point to $\frac{9}{6}$.) Read this fraction. (Signal.) $9/6$.
 - (Point to $\frac{12}{4}$.) Read this fraction. (Signal.) $12/4$.
 - (Point to $\frac{3}{10}$.) Read this fraction. (Signal.) $3/10$.
 - (Point to $\frac{45}{6}$.) Read this fraction. (Signal.) $45/6$.
- b. Here's a rule about fractions: You can write any fraction as a division problem.
- (Point to $\frac{9}{6}$.) I'll say the division problem for 9 sixths. 9 divided by 6. Say the division problem. (Signal.) $9 \div 6$.
 - (Point to $\frac{12}{4}$.) Say the division problem for $12/4$. (Signal.) $12 \div 4$.
 - (Point to $\frac{3}{10}$.) Say the division problem for $3/10$. (Signal.) $3 \div 10$.
 - (Point to $\frac{45}{6}$.) Say the division problem for $45/6$. (Signal.) $45 \div 6$.
- (Repeat step b until firm.)

- c. (Add to show:) [42:6B]

$$\begin{array}{cc} \frac{9}{6} & \square \\ \frac{3}{10} & \square \\ \frac{12}{4} & \square \\ \frac{45}{6} & \square \end{array}$$

This time, you'll say the division problem, and I'll write it.

- (Point to $\frac{9}{6}$.) Say the division problem for 9/6. (Signal.) $9 \div 6$. (Add to show:) [42:6C]

$$\begin{array}{cc} \frac{9}{6} & 6 \overline{)9} \\ \frac{3}{10} & \square \\ \frac{12}{4} & \square \\ \frac{45}{6} & \square \end{array}$$

- d. (Point to $\frac{12}{4}$.) Say the division problem for 12/4. (Signal.) $12 \div 4$. (Add to show:) [42:6D]

$$\begin{array}{cc} \frac{9}{6} & 6 \overline{)9} \\ \frac{3}{10} & \square \\ \frac{12}{4} & 4 \overline{)12} \\ \frac{45}{6} & \square \end{array}$$

- e. (Point to $\frac{3}{10}$.) Say the division problem for 3/10. (Signal.) $3 \div 10$. (Add to show:) [42:6E]

$$\begin{array}{cc} \frac{9}{6} & 6 \overline{)9} \\ \frac{3}{10} & 10 \overline{)3} \\ \frac{12}{4} & 4 \overline{)12} \\ \frac{45}{6} & \square \end{array}$$

- f. (Point to $\frac{45}{6}$.) Say the division problem for 45/6. (Signal.) $45 \div 6$. (Add to show:) [42:6F]

$$\begin{array}{cc} \frac{9}{6} & 6 \overline{)9} \\ \frac{3}{10} & 10 \overline{)3} \\ \frac{12}{4} & 4 \overline{)12} \\ \frac{45}{6} & 6 \overline{)45} \end{array}$$

TEXTBOOK PRACTICE

- a. Open your textbook to Lesson 42 and find part 1. ✓ (Teacher reference:)

a. $\frac{12}{6}$ b. $\frac{20}{4}$ c. $\frac{30}{7}$ d. $\frac{13}{2}$

Part 1			
a.	b.	c.	d.

For each fraction, you'll write the division problems on your lined paper.

- Read fraction A. (Signal.) $12/6$.
- Say the division problem for 12/6. (Signal.) $12 \div 6$.
- b. Read fraction B. (Signal.) $20/4$.
- Say the division problem for 20/4. (Signal.) $20 \div 4$. (If students have been firm on saying division problems for fractions for at least two lessons, skip to step e.)

- c. Read fraction C. (Signal.) $30/7$.
- Say the division problem for 30/7. (Signal.) $30 \div 7$.
- d. Read fraction D. (Signal.) $13/2$.
- Say the division problem for 13/2. (Signal.) $13 \div 2$. (Repeat problems that were not firm.)

- e. Write part 1 on your lined paper with the letters A through D below. Then write the division problem for each fraction. Do not work the division problems. Just write them. (Observe students and give feedback.)
- f. Check your work. You'll read the division problem you wrote.
 - Problem A. (Signal.) $12 \div 6$.
 - Problem B. (Signal.) $20 \div 4$.
 - Problem C. (Signal.) $30 \div 7$.
 - Problem D. (Signal.) $13 \div 2$.

EXERCISE 7: WORD PROBLEMS

ADDITION/SUBTRACTION—MISSING FIRST SMALL NUMBER MIX

- a. Find part 2 in your textbook. ✓
(Teacher reference:)

Problems

- a. The dog weighed 319 ounces. The cat weighed 374 ounces. How much more did the cat weigh than the dog?
- b. Dessi had some money. Dessi spent \$113. Dessi ended up with \$197. How much money did Dessi have to begin with?
- c. There were 543 bottles on a shelf. Some of those bottles were taken off of the shelf. The shelf now has 261 bottles on it. How many bottles were taken off of the shelf?
- d. The building was 28 meters shorter than the hill. The building was 67 meters tall. How tall was the hill?

Part 2	
a.	→
b.	→
c.	→
d.	→

You'll make addition number families to work these problems.

- Write part 2 on your lined paper with the letters A through D below. Make an addition number family arrow after each letter.
(Observe students and give feedback.)
- Some of the problems in part 2 do not give the first small number. For each problem, you'll tell me if you'll write a family with the letters E and S. Then you'll tell me if you'll write the first small number in the family.
- Read problem A. (Call on a student.) *The dog weighed 319 ounces. The cat weighed 374 ounces. How much more did the cat weigh than the dog?*
- Will you make a number family with the letters for start and end? (Signal.) *No.*
- Does the problem give the first small number in the family? (Signal.) *No.*
(If students have performed perfectly on word problems for at least two lessons, skip to step f.)

- c. Read problem B. (Call on a student.) *Dessi had some money. Dessi spent 113 dollars. Dessi ended up with 197 dollars. How much money did Dessi have to begin with?*
- Will you make a number family with the letters for start and end? (Signal.) *Yes.*
 - Does the problem give the first small number in the family? (Signal.) *Yes.*
- d. Read problem C. (Call on a student.) *There were 543 bottles on a shelf. Some of those bottles were taken off of the shelf. The shelf now has 261 bottles on it. How many bottles were taken off of the shelf?*
- Will you make a number family with the letters for start and end? (Signal.) *Yes.*
 - Does the problem give the first small number in the family? (Signal.) *No.*

- e. Read problem D. (Call on a student.) *The building was 28 meters shorter than the hill. The building was 67 meters tall. How tall was the hill?*
- Will you make a number family with the letters for start and end? (Signal.) *No.*
 - Does the problem give the first small number in the family? (Signal.) *Yes.*
(Repeat problems that were not firm.)
- f. Work all the problems. Put your pencil down when you've completed part 2.
(Observe students and give feedback.)
- g. Check your work for problem A.
- What letter did you write for the big number? (Signal.) *C.*
 - What letter did you write for a small number? (Signal.) *D.*
 - Read the column problem and the answer. (Signal.) $374 - 319 = 55$.
 - How much more did the cat weigh than the dog? (Signal.) *55 ounces.*
(Display:)

[42:7A]

Part 2	
a.	$\begin{array}{r} 319 \\ \underline{d\ 374} \\ \end{array}$ $\begin{array}{r} 6 \\ 3\overline{)4} \\ - 319 \\ \hline 55 \text{ ounces} \end{array}$

Here's what you should have for problem A.

- h. Check your work for problem B.
- What letter did you write for the big number? (Signal.) *S.*
 - What letter did you write for a small number? (Signal.) *E.*
 - What number did you write for the first small number? (Signal.) *113.*
 - Read the column problem and the answer. (Signal.) $113 + 197 = 310$.
 - How much did Dessi have to begin with? (Signal.) *310 dollars.*
(Display:)

[42:7B]

b.	$\begin{array}{r} 197 \\ \underline{E\ 113} \\ \end{array}$ $\begin{array}{r} 11 \\ \$113 \\ + 197 \\ \hline \$310 \end{array}$
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Here's what you should have for problem B.

- i. Check your work for problem C.
- What letter did you write for the big number? (Signal.) S.
- What letter did you write for a small number? (Signal.) E.
- Read the column problem and the answer. (Signal.) $543 - 261 = 282$.
- How many bottles were taken off of the shelf? (Signal.) 282. (Display:)

[42:7C]

		261	543		4	543	
c.		E	S				
						- 261	
						282	bottles

Here's what you should have for problem C.

- j. Check your work for problem D.
- What letter did you write for the big number? (Signal.) H.
- What letter did you write for a small number? (Signal.) B.
- What number did you write for the first small number? (Signal.) 28.
- Read the column problem and the answer. (Signal.) $28 + 67 = 95$.
- How tall was the hill? (Signal.) 95 meters. (Display:)

[42:7D]

		67			1	28	
d.	28	B	H				
						+ 67	
						95	meters

Here's what you should have for problem D.

EXERCISE 8: DIVISION
WRITE ANSWER OR LARGEST PART

- a. Find part 3 in your textbook. ✓ (Teacher reference:)

Part 3		
a. 4 18	c. 9 18	e. 8 16
b. 3 18	d. 5 18	f. 10 54

- Copy part 3 on your lined paper and work all of the problems. If you can divide, write the answer above. If you can't divide, write the largest part below. Write only the largest part or the answer. Do not write leftovers. (Observe students and give feedback.)
- b. Check your work.
 - Problem A is $18 \div 4$. What number did you write? (Signal.) 16.
 - Problem B is $18 \div 3$. What number did you write? (Signal.) 6.
 - Problem C is $18 \div 9$. What number did you write? (Signal.) 2.
 - Problem D is $18 \div 5$. What number did you write? (Signal.) 15.
 - Problem E is $16 \div 8$. What number did you write? (Signal.) 2.
 - Problem F is $54 \div 10$. What number did you write? (Signal.) 50.

EXERCISE 9: DECIMALS
TENTHS AND HUNDREDTHS—WRITING

- a. Find part 4 in your textbook. ✓ (Teacher reference:)

Descriptions

- a. Decimal number a is thirteen and twelve hundredths.
- b. Decimal number b is five hundred and six tenths.
- c. Decimal number c is five hundred and sixty hundredths.
- d. Decimal number d is eighteen and three hundredths.
- e. Decimal number e is twenty and eight tenths.
- f. Decimal number f is four hundred seventeen and zero tenths.

Part 4	
a.	d.
b.	e.
c.	f.

You're going to write decimal numbers. You'll write some tenths numbers and some hundredths numbers. Each sentence tells the number you'll write.

- Write part 4 on your lined paper with the letters A through F below. (Observe students and give feedback.)
- b. Listen: For tenths numbers, how many digits do you write after the decimal point? (Signal.) 1.
 - For hundredths numbers, how many digits do you write after the decimal point? (Signal.) 2. (Repeat step b until firm.)
- c. Now you'll write decimal numbers. I'll read the sentence for each number.
 - Decimal number A is 13 and 12 hundredths. What number? (Signal.) 13 and 12 hundredths.
 - Write the number for A on your lined paper. ✓
- Everybody, touch and read the symbols you wrote for number A. (Signal.) 1, 3, decimal point, 1, 2. (Repeat until firm.)

- d. Decimal number B is 500 and 6 tenths. What number? (Signal.) *500 and 6 tenths*.
- Write the number for B. ✓
 - Touch and read the symbols you wrote for decimal number B. (Signal.) *5, 0, 0, decimal point, 6*.
- e. Decimal number C is 500 and 60 hundredths. What number? (Signal.) *500 and 60 hundredths*.
- Write the number for C. ✓
 - Touch and read the symbols you wrote for decimal number C. (Signal.) *5, zero, zero, decimal point, 6, zero*.
- f. Decimal number D is 18 and 3 hundredths. What number? (Signal.) *18 and 3 hundredths*.
- Write the number for D. ✓
 - Touch and read the symbols you wrote for decimal number D. (Signal.) *1, 8, decimal point, zero, 3*.
- g. Decimal number E is 20 and 8 tenths. What number? (Signal.) *20 and 8 tenths*.
- Write the number for E. ✓
 - Touch and read the symbols you wrote for decimal number E. (Signal.) *2, zero, decimal point, 8*.
- h. Decimal number F is 417 and zero tenths. What number? (Signal.) *417 and zero tenths*.
- Write the number for F. ✓
 - Touch and read the symbols you wrote for decimal number F. (Signal.) *4, 1, 7, decimal point, zero*.

(Display:) [42:9A]

Part 4		
a.	13.12	d. 18.03
b.	500.6	e. 20.8
c.	500.60	f. 417.0

Here's what you should have for part 4.

- i. Now you'll read all the decimal numbers you wrote for part 4.
- Read number A. (Signal.) *13 and 12 hundredths*.
 - Read number B. (Signal.) *500 and 6 tenths*.
 - Read number C. (Signal.) *500 and 60 hundredths*.
 - Read number D. (Signal.) *18 and 3 hundredths*.
 - Read number E. (Signal.) *20 and 8 tenths*.
 - Read number F. (Signal.) *417 and zero tenths*.

EXERCISE 10: INDEPENDENT WORK

MIXED COMPUTATION

- a. Find part 5 in your textbook. ✓
(Teacher reference:)

Part 5					
a.	$\begin{array}{r} \$70.15 \\ - 9.09 \\ \hline \end{array}$	d. $\begin{array}{r} 2\overline{)68} \\ \underline{4} \\ 28 \\ \underline{26} \\ 2 \\ \hline \end{array}$	g.	$\begin{array}{r} 10 \\ \times 640 \\ \hline \end{array}$	
b.	$\begin{array}{r} 64 \\ \times 3 \\ \hline \end{array}$	e.	$\begin{array}{r} 509 \\ \times 7 \\ \hline \end{array}$	h.	$\begin{array}{r} 81.4 \\ - 77.7 \\ \hline \end{array}$
c.	$\begin{array}{r} 5.8 \\ 20.9 \\ + 482.3 \\ \hline \end{array}$	f.	$\begin{array}{r} 3\overline{)189} \\ \underline{9} \\ 99 \\ \underline{90} \\ 9 \\ \hline \end{array}$	i.	$\begin{array}{r} \$8.96 \\ + 1.05 \\ \hline \end{array}$

You'll copy part 5 and work the problems. Be careful. Part 5 has addition, subtraction, multiplication, and division problems. Some of the problems are money problems, and some are decimal problems.

Assign Independent Work, Textbook parts 5–9.

Optional extra math-fact practice worksheets for all lessons are available on ConnectED.

Lesson 42

Part 1

a. $3 \overline{) 8}$ d. $\overline{) 4} 12$ g. $9 \overline{) 4}$ j. $3 \overline{) 18}$
 b. $\overline{) 6} 36$ e. $9 \overline{) 81}$ h. $\overline{) 8} 24$ k. $2 \overline{) 9}$
 c. $9 \overline{) 6}$ f. $3 \overline{) 7}$ i. $\overline{) 8} 72$ l. $\overline{) 7} 63$

Part 2

a. $8 \times 3 =$ g. $5 \times 5 =$ m. $4 \overline{) 16}$ s. $7 \overline{) 49}$ y. $5 \overline{) 10}$
 b. $9 \times 4 =$ h. $3 \overline{) 27}$ n. $9 \times 6 =$ t. $2 \overline{) 14}$ z. $7 \times 9 =$
 c. $9 \overline{) 18}$ i. $8 \overline{) 64}$ o. $6 \overline{) 36}$ u. $9 \overline{) 90}$ A. $3 \overline{) 27}$
 d. $3 \overline{) 21}$ j. $8 \times 9 =$ p. $8 \overline{) 72}$ v. $9 \times 9 =$ B. $9 \times 5 =$
 e. $4 \times 4 =$ k. $3 \times 7 =$ q. $3 \times 6 =$ w. $5 \times 8 =$ C. $9 \overline{) 81}$
 f. $3 \overline{) 9}$ l. $10 \overline{) 100}$ r. $10 \overline{) 80}$ x. $9 \overline{) 54}$ D. $5 \overline{) 45}$

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Part 3

a. $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$ b. $\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$ c. $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$ d. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$
 e. $\begin{array}{r} 7 \\ \times 50 \\ \hline \end{array}$ f. $\begin{array}{r} 2 \\ \times 80 \\ \hline \end{array}$ g. $\begin{array}{r} 7 \\ \times 90 \\ \hline \end{array}$ h. $\begin{array}{r} 5 \\ \times 60 \\ \hline \end{array}$

Connecting Math Concepts

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Lesson 42

Part 4

a. $9 \overline{) 37}$ b. $2 \overline{) 11}$ c. $4 \overline{) 15}$ d. $3 \overline{) 22}$

Part 5

a. $8 \times 9 =$ g. $9 \times 4 =$ m. $3 \times 3 =$ s. $9 \times 10 =$ y. $9 \times 7 =$
 b. $3 \times 7 =$ h. $8 \times 0 =$ n. $5 \times 7 =$ t. $3 \times 9 =$ z. $8 \times 5 =$
 c. $4 \times 6 =$ i. $6 \times 4 =$ o. $3 \times 8 =$ u. $7 \times 3 =$ A. $4 \times 4 =$
 d. $7 \times 9 =$ j. $9 \times 9 =$ p. $4 \times 9 =$ v. $9 \times 2 =$ B. $6 \times 9 =$
 e. $8 \times 3 =$ k. $4 \times 3 =$ q. $6 \times 3 =$ w. $10 \times 10 =$ C. $9 \times 8 =$
 f. $7 \times 2 =$ l. $6 \times 6 =$ r. $7 \times 10 =$ x. $1 \times 6 =$ D. $3 \times 6 =$

Lesson 43

Part 1

a. $4 \overline{) 24}$ g. $8 \overline{) 16}$ m. $9 \overline{) 72}$ s. $9 \overline{) 90}$ y. $3 \overline{) 6}$
 b. $3 \overline{) 24}$ h. $4 \overline{) 16}$ n. $9 \times 6 =$ t. $3 \overline{) 12}$ z. $7 \overline{) 63}$
 c. $8 \times 9 =$ i. $7 \times 3 =$ o. $9 \overline{) 45}$ u. $9 \times 4 =$ A. $6 \overline{) 24}$
 d. $2 \overline{) 18}$ j. $7 \times 9 =$ p. $3 \times 9 =$ v. $10 \overline{) 100}$ B. $5 \times 9 =$
 e. $3 \overline{) 18}$ k. $4 \overline{) 36}$ q. $3 \overline{) 9}$ w. $9 \overline{) 54}$ C. $9 \overline{) 81}$
 f. $4 \times 3 =$ l. $6 \overline{) 36}$ r. $3 \overline{) 21}$ x. $3 \times 6 =$ D. $3 \times 8 =$

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Connecting Math Concepts

Lesson 42

Part 1

a. $\frac{12}{6}$

b. $\frac{20}{4}$

c. $\frac{30}{7}$

d. $\frac{13}{2}$

Part 1			
a.	b.	c.	d.

Part 2

Problems

- The dog weighed 319 ounces. The cat weighed 374 ounces. How much more did the cat weigh than the dog?
- Dessi had some money. Dessi spent \$113. Dessi ended up with \$197. How much money did Dessi have to begin with?
- There were 543 bottles on a shelf. Some of those bottles were taken off of the shelf. The shelf now has 261 bottles on it. How many bottles were taken off of the shelf?
- The building was 28 meters shorter than the hill. The building was 67 meters tall. How tall was the hill?

Part 2	
a.	→
b.	→
c.	→
d.	→

Part 3

Part 3		
a. $4 \overline{)18}$	c. $9 \overline{)18}$	e. $8 \overline{)16}$
b. $3 \overline{)18}$	d. $5 \overline{)18}$	f. $10 \overline{)54}$

Lesson 42

Part 4

Descriptions

- Decimal number a is thirteen and twelve hundredths.
- Decimal number b is five hundred and six tenths.
- Decimal number c is five hundred and sixty hundredths.
- Decimal number d is eighteen and three hundredths.
- Decimal number e is twenty and eight tenths.
- Decimal number f is four hundred seventeen and zero tenths.

Part 4	
a.	d.
b.	e.
c.	f.

Independent Work

Part 5 Copy Part 5 and work the problems.

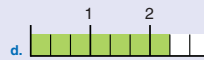
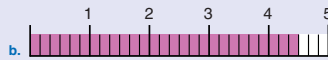
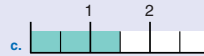
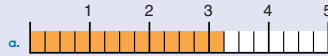
Part 5		
a. $\begin{array}{r} \$70.15 \\ - 9.09 \\ \hline \end{array}$	d. $2 \overline{)68}$	g. $\begin{array}{r} 10 \\ \times 640 \\ \hline \end{array}$
b. $\begin{array}{r} 64 \\ \times 3 \\ \hline \end{array}$	e. $\begin{array}{r} 509 \\ \times 7 \\ \hline \end{array}$	h. $\begin{array}{r} 81.4 \\ - 77.7 \\ \hline \end{array}$
c. $\begin{array}{r} 5.8 \\ 20.9 \\ + 482.3 \\ \hline \end{array}$	f. $3 \overline{)189}$	i. $\begin{array}{r} \$8.96 \\ + 1.05 \\ \hline \end{array}$

Lesson 42

Part 6 Copy Part 6. Then write the column problem for finding each missing number and work it. Write the missing numbers in the table.

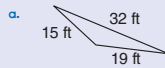
Part 6		
76		
231	159	
	277	

Part 7 For each number line, write the fraction and complete the equation to show the mixed number it equals.

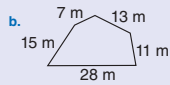


Part 7	
a.	c.
b.	d.

Part 8 Write the column problems for finding the perimeter of each shape and work it.



Part 8	
a.	b.



Lesson 42

Part 9 Copy Part 9. Write the top number for each fraction to complete the equations.

Part 9	
a.	$7 = \frac{\quad}{1} = \frac{\quad}{10} = \frac{\quad}{29} = \frac{\quad}{3}$
b.	$8 = \frac{\quad}{3} = \frac{\quad}{2} = \frac{\quad}{9} = \frac{\quad}{5}$

