

## Lesson 24 Textbook

### Part 1

For each problem, write an equation with letters. Below, write an equation with two numbers. Box the simple equation.

- a. There are 48 used cars and 56 new cars on the lot. How many cars are on the lot?
- b. 255 raffle tickets are in a drum. 128 of the tickets have an odd number. How many even-number tickets are in the drum?
- c. There are brown bottles and green bottles in a box. There are 75 bottles in the box. 19 of the bottles are brown. How many green bottles are there?
- d. 98 of the 105 items in the gallery are for sale. How many of the gallery items are not for sale?
- e. 38 seventh-grade students and 45 eighth-grade students from Wilson Middle School went on a joint field trip to the museum. How many students went on the field trip?

### Part 2

Simplifying Values that are Multiplied

$$6 \times \frac{5}{2} = \frac{30}{2} = 15$$

$$\frac{6}{2} \times 5 = \frac{30}{2} = 15$$

• Rewrite these expressions:

•  $4 \times \frac{3}{5}$

•  $\frac{3}{5} \times 3$

$$\frac{\cancel{6}^3 \times 5}{\cancel{2}_1} = 15$$

• If a value is multiplied by a fraction, you can simplify **across values**.

((2<sup>nd</sup> color  
/ 1  
/ 2))

((2<sup>nd</sup> color  
/ 3  
/ 2))

but not

$$6 \times \frac{\cancel{5}^1}{\cancel{10}_2} =$$

• Simplify the fraction first if you can.

$$\frac{\cancel{6}^3 \times \cancel{5}^1}{\cancel{10}_2}$$

• Then simplify across values.

**WORKBOOK PART 3 FOLLOWS.**

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### Part 3

Read the part of the problem that tells about the related

- a. There are 12 cats in every 4 boxes. If there are 11 boxes, how many cats are there?
- b. Every 6 years, the tree grows 1 foot, and the tree grows for 5 years. How much does the tree grow?
- c. How many children are in 5 groups if there are 36 children in 6 groups?
- d. How far would a boat travel in 3 hours if the boat traveled 75 miles every 4 hours?

### Part 4

• If a problem doesn't give a number for **each** or **every**, the number is **1**.

- There are 12 oars for every boat.
- For each rainy day there were 3 sunny days.

((bf 2<sup>nd</sup> color))

• There were 78 chairs, with **13 chairs in each row**.  $c \left( \frac{r}{c} \right) = r$

How many rows were there?  $c \left( \frac{1}{13} \right) = r$  ((bf 2<sup>nd</sup> color))

• **Copy each equation. Below, write the same equation with the numbers that show the relationship.**

- a. There are 4 hamsters for every cat. There are 12 cats.  
How many hamsters are there?

$$c \left( \frac{h}{c} \right) = h$$

- b. The car went 45 miles every hour and traveled 200 miles. How many hours did the trip take?

$$m \left( \frac{h}{m} \right) = h$$

- c. There are 84 roses. If each vase contains 12 roses, how many vases are there?

$$r \left( \frac{v}{r} \right) = v$$

- d. Each test takes 40 minutes. How many tests can be given in 120 minutes?

$$m \left( \frac{t}{m} \right) = t$$

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### Part 5

#### Divisibility

• If the last digit shows that a number is divisible by **2**, see if it is divisible by a **multiple of 2**.

• 2, 4, 6, and 8 are multiples of 2. || • 44 • 56 • 14

• If a number is divisible by **2 and 3**, the number is divisible by **6**. || • 246

### Part 6

**Write the letter of each number that is divisible by 6. Then work the division problem.**

a. 603

c. 612

e. 531

g. 96

b. 94

d. 156

f. 402

h. 100

## Lesson 24 Independent Work

### Part 7

Write a division problem for each fraction. Show the answer as a mixed number or whole number.

a.  $\frac{37}{8}$

b.  $\frac{13}{8}$

c.  $\frac{14}{1}$

d.  $\frac{17}{17}$

### Part 8

Write whether each number is divisible by 10, 5, 3, or 2. Some numbers are divisible by more than one value.

a. 120

b. 45

c. 39

d. 72

### Part 9

Write a simple equation for each letter.

a.  $\frac{3}{8}(5) = j$

b.  $26(p) = 1$

c.  $2(3.4) = c$

d.  $5(q) = 13$

### Part 10

Copy each equation. Solve for the letter.

a.  $\frac{5}{8} = \frac{3}{8} + j$

b.  $4.9 + b = 12.3$

c.  $r - 15 = 40$

d.  $\frac{3}{5} = m - \frac{9}{5}$

### Part 11

Write the complete equations.

a.  $k(\square) = 6$

c.  $4(\square) = 147$

e.  $\square\left(\frac{r}{b}\right) = \square$

b.  $\square\left(\frac{3}{13}\right) = \square$

d.  $\square\left(\frac{12}{19}\right) = \square$

### Part 12

Copy and work each problem.

a.  $3.84 \times 7 =$

c.  $5\overline{)495}$

e.  $6\frac{8}{10} =$

b.  $3\overline{)4891}$

d.  $3.2 + 78.1 + 12.07$

f.  $\frac{48}{5} =$

## Lesson 24 Independent Work cont.

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### Part 13

Write the complete letter equation for each question.

- a. If there are 86 robes, how many buttons are there?
- b. How many gallons are 7 identical containers?
- c. If the enlargement is 36 inches wide, how many inches tall is it?
- d. If there are 45 black birds, how many red birds are there?

### Part 14

Complete each equation to show the equivalent hundredths fraction, decimal, and percent value.

a.  $\frac{\square}{\square} = .09 = \square \%$

b.  $\frac{\square}{\square} = .\square\square = 49\%$

### Part 15

Copy and complete each equation.

a.  $\frac{\square}{14} = \frac{3}{7}$

b.  $\frac{8}{7} = \frac{32}{\square}$