

KEY

NAME _____

DATE _____

PERIOD _____

Unit 6, Lesson 6: Write Expressions Where Letters Stand for Numbers

1. Instructions for a craft project say that the length of a piece of red ribbon should be 7 inches less than the length of a piece of blue ribbon.

a. How long is the red ribbon if the length of the blue ribbon is:

10 inches?

$10 - 7 = 3 \text{ in (Red)}$

27 inches?

$27 - 7 = 20 \text{ in (Red)}$

x inches?

$x - 7$ to find red
blue
opposite of subtract is add $12 + 7 = 19 \text{ in}$

4

b. How long is the blue ribbon if the red ribbon is 12 inches?

2. Tyler has 3 times as many books as Mai.

a. How many books does Mai have if Tyler has:

15 books?

$\frac{15}{3} = 5 \text{ books}$
divide

21 books?

$\frac{21}{3} = 7 \text{ books}$
divide

x books?

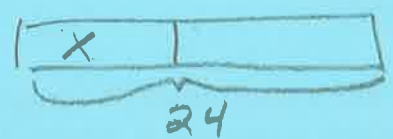
$\frac{x}{3}$ Tyler

b. Tyler has 18 books. How many books does Mai have?

$\frac{18}{3} = 6 \text{ books}$

4

3. A bottle holds 24 ounces of water. It has x ounces of water in it.



a. What does $24 - x$ represent in this situation? How much more it could hold

b. Write a question about this situation that has $24 - x$ for the answer.

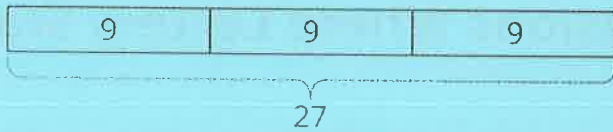
2

4. Write an equation represented by this tape diagram that uses each of the following operations.

NAME

DATE

PERIOD



a. addition $9 + 9 + 9 = 27$

b. subtraction $27 - 9 = 18$

$27 - 18 = 9$

c. multiplication $3 \cdot 9 = 27$ or

$\frac{1}{3} \cdot 27 = 9$

d. division $27 \div 3 = 9$

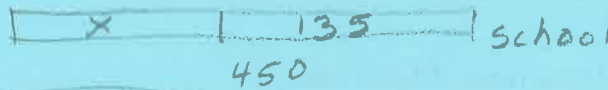
or $27 \div 9 = 3 \text{ groups}$

(from Unit 6, Lesson 1)

14

5. Select **all** the equations that describe each situation and then find the solution.

a. Han's house is 450 meters from school. Lin's house is 135 meters closer to school. How far is Lin's house from school?



$z = 450 + 135$

$z = 450 - 135$

$z - 135 = 450$

$z + 135 = 450$

$$\begin{array}{r} 450 \\ - 135 \\ \hline 315 \text{ meters} \end{array}$$

14

b. Tyler's playlist has 36 songs. Noah's playlist has one quarter as many songs as Tyler's playlist. How many songs are on Noah's playlist?



$w = 4 \cdot 36$

$w = 36 \div 4$

$4w = 36$

$\frac{w}{4} = 36$

9 songs

1/4's

14

(from Unit 6, Lesson 4)

Challenge

6. You had \$50. You spent 10% of the money on clothes, 20% on games, and the rest on books. How much money was spent on books?

$50 \times .1 = \$5 \text{ clothes}$

$2 = \$10 \text{ games}$

$\$15$

$50 - 15 = 2$
 $\$35 \text{ Books}$