



Teacher's Resource Masters

GRADE 7 VOLUME 2

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Pick a Project

enVision® STEM Project

Reteach to Build Understanding

Additional Vocabulary Support

Build Mathematical Literacy

Enrichment

Teaching Tools

enVision® Mathematics

Grade 7

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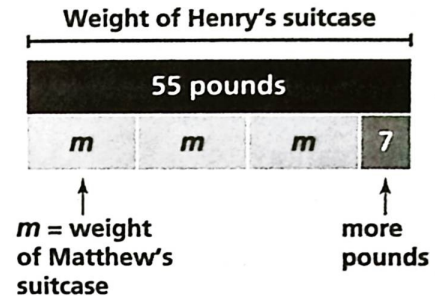
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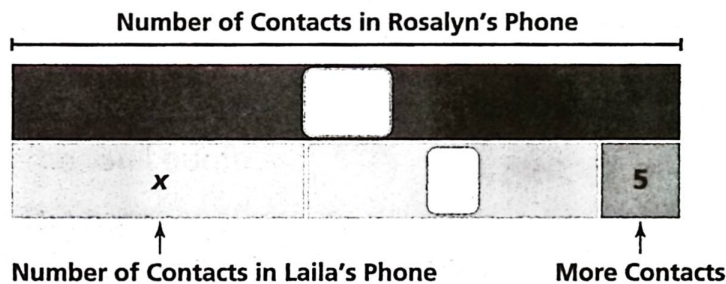
Henry's suitcase weighs 55 pounds. This is 7 pounds more than 3 times the weight of Matthew's suitcase. What equation can be used to relate the weights of Henry's and Matthew's suitcases?

The equation $55 = 3m + 7$ can be used to relate the weights of Henry's and Matthew's suitcases.



Rosalyn has 185 contacts in her phone. That is 5 more than twice the number of contacts Laila has in her phone. What equation represents the relationship between the numbers of contacts Rosalyn and Laila have in their phones?

1. Complete the bar diagram.



2. What does the variable x represent?
3. What expression represents the number of contacts in Rosalyn's phone in terms of the contacts in Laila's phone?
4. What equation can be used to represent the relationship between the numbers of contacts Rosalyn and Laila have in their phones?

On the Back!

5. Josh has \$252 in his bank account. This is \$12 more than 6 times the amount of money that Sally has in her bank account. What equation can be used to represent the relationship between the amounts of money Josh and Sally have in their bank accounts?

Name _____

Use each item in the list below to complete each sentence.

variable

constant

substitute

multiplication

coefficient

addition

Toby buys some books for \$7.25 each and a magazine for \$4.95. His total bill before tax is \$55.70. What equation can be used to represent the situation?

Toby writes the following equation to model the situation.

$$\text{total cost} = \text{cost of each book} \cdot \text{number of books} + \text{cost of the magazine}$$

1. Next, _____ the given values into the equation;

$$55.70 = 7.25 \cdot \text{number of books} + 4.95$$

2. To represent the number of books Toby buys, use a(n) _____;

$$55.70 = 7.25 \cdot b + 4.95$$

3. In this equation, 7.25 is the _____ of the variable
and 4.95 is the _____.

4. To find the cost of the books, this equation uses _____.
To combine all the costs, this equation uses _____.

Indicate whether each equation below is a *one-step equation* or a *two-step equation*.

5. $25 = x + 3$

one-step equation

two-step equation

6. $2b - 7 = 15$

one-step equation

two-step equation

7. $10m = 90$

one-step equation

two-step equation

Name _____

Read the word problem below. Then answer the questions to understand the problem.

Natalie uses 68 photos to make an online photo album. She can fit 5 photos on each page. She fills all of the pages in her album except for the last page, which has 2 empty spaces. What equation can be used to find the number of pages in the album?

1. Underline the key information in the problem.
2. Is the answer to this problem a number? Explain.
3. Circle the quantity that will be represented by a variable.
Explain how you determined this from the problem.

The total number of photos

The number of photos per page

The number of pages in the album

The number of empty spaces

4. What is the total number of photos the album can hold if the album has p pages? Explain.
5. Which expression represents the number of photos in the album, $5p + 2$ or $5p - 2$? Explain your choice.