

Write and Evaluate More Expressions

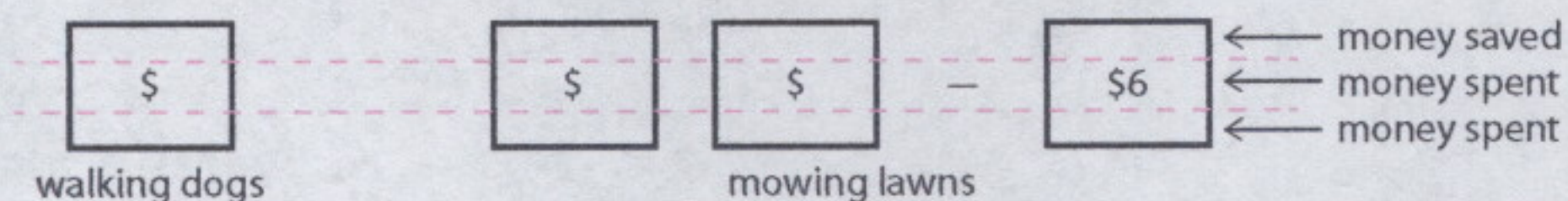
Study the example showing how to write and evaluate more expressions. Then solve problems 1–5.

Example

Last week Juan mowed lawns and walked his neighbor's dog to earn money. For mowing lawns, he earned \$6 less than twice as much as he did for walking dogs. Juan saves one-third of the money he earns and spends the rest.

Write an expression to show how much money Juan earned last week.

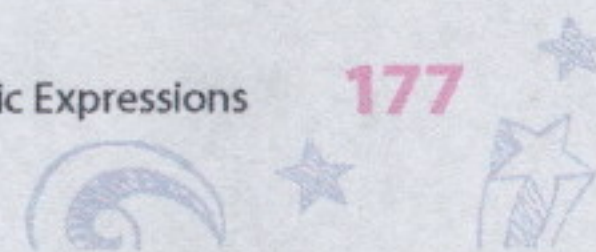
Draw a picture to help you understand the problem.



Let w be the amount Juan earned walking dogs. Then $(2w - 6)$ is the amount Juan earned mowing lawns. The total amount Juan earned is $w + (2w - 6)$, or $3w - 6$.

- 1** Emma wrote the expression $2(3w - 6)$ to represent the amount of money that Juan spent. Is she correct? Explain.

- 2** Explain how you can find the amount of money Juan saved if he earned \$12 walking dogs.



Solve.

- 3 The price p of a gallon of gas goes up \$0.05 cents on Friday. On Saturday the price goes down \$0.03. Write an expression with three terms to show the price of a gallon of gas on Saturday.
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- 4 Look at problem 3. If the price of a gallon of gas was \$2.59 on Friday morning before the change in price, what was the price of a gallon of gas on Saturday? Explain how you know.
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- 5 Katie gives Maggie half of her pencils. Maggie keeps 5 pencils and gives the rest to Jamil.

- a. Write an expression for the number of pencils Maggie gives to Jamil.
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- b. If Katie had 16 pencils, how many pencils does Maggie give to Jamil?

Show your work.

Solution: _____

- c. How many pencils did Katie have if Maggie gave Jamil 1 pencil? Explain how you can use the expression to help you answer the question.

Show your work.

Solution: _____
