

1 Representing Situations Using Algebra

What You Learned

Learning Goal

I can explain how an equation can describe a real-life situation.

Lesson Summary

- You can use equations with one or more variables to describe real-life situations.

For example,



$3 \times s = 45$ describes buying 3 identical shirts for \$45.

- You can write different equations to describe the same situation.

For example, $s + s + s = 45$ also describes buying 3 identical shirts for \$45.

- You can use the same equation to describe different situations.

For example,



$3 \times s = 12$ describes the cost of one book if you buy 3 identical books for \$12.

1 Representing Situations Using Algebra

What You Learned (continued)



$3 \times s = 12$ also describes the amount of money in 3 piles of \$2 coins.

- In an algebra equation, there are constants, whose values don't change, and variables. In many equations, the values of variables can change.

3 and 45 are constants.



$$3 \times s = 45$$

s is a variable.

Key Terms

algebra: a way to describe mathematical relationships using symbols (variables)

constant: a known value in an equation that does not change; in $3 + a = b$, 3 is a constant

variable: a letter, shape, or other symbol that stands for a number; in the equation $3 + a = 12$, a is a variable
