

Write and Evaluate Expressions

CA Standards
KEY AF 1.2, AF 1.0

Solve expressions that have variables.

The soccer team scored 5 more goals in the second half of the game than the first half of the game. How many goals has the team scored in all?

Step 1

Choose the variable.

Let g be the number of goals scored in the first half.

Suppose 3 goals were scored in the first half. How many goals were scored in the game in all?

Replace the variable g with 3.

$$g + (g + 5) = 3 + (3 + 5)$$

Step 2

Identify the operation.

You would add to find the number of goals scored in all.

Simplify the expression.

$$3 + (3 + 5) = 3 + 8$$

$$3 + 8 = 11$$

Step 3

Write the expression for the number of goals scored the second half.

$$g + 5$$

Solution: The soccer team scores 11 goals in all.

Write an algebraic expression for each word phrase.

Use the variable n to represent the unknown number.

1. Five times a number plus four

$$\underline{5n + 4}$$

2. A number squared minus three

$$\underline{n^2 - 3}$$

3. Three times a number + two minus one

$$\underline{(3n + 2) - 1}$$

4. Ten times a number plus eight

$$\underline{10n + 8}$$

Translate each algebraic expression into words.

5. $42 + m$

Possible answer: 42
increased by a number

6. $5p - 10$

Possible answer: 5 times a
number decreased by 10

Evaluate each expression when $y = 8$ and $a = 45$.

7. $2y - 13$ 3

8. $a - 38$ 7



Writing Math Explain how an algebraic expression can change if the variable changes.

Possible answer: If the value of the variable changes,
then the algebraic expression will have different values.