

Illustrative Mathematics

5.OA Words to Expressions 1

Alignments to Content Standards

- [Alignment: 5.OA.A.2](#)

Tags

- *This task is not yet tagged.*

Write an expression that records the calculations described below, but do not evaluate.

Add 2 and 4 and multiply the sum by 3. Next, add 5 to that product and then double the result.

Commentary

This problem allows student to see words that can describe the expression from part (c) of "5.OA Watch out for Parentheses." Additionally , the words (add, sum) and (product, multiply) are all strategically used so that the student can see that these words have related meanings.

Solutions

Solution: Writing an Expression

Taking the instructions step by step we have:

1. Add 2 and 4 and multiply the sum by 3: $3(2 + 4)$ or possibly $(2 + 4)3$.
2. Add 5 to that product gives $5 + 3(2 + 4)$ or $3(2 + 4) + 5$ or even $(2 + 4)3 + 5$.
3. Then double the result means we need to multiply the entire expression by 2:

$$2(5 + 3(2 + 4))$$

or

$$(5 + 3(2 + 4))2$$

or

$$2(3(2 + 4) + 5)$$

or

$$(3(2 + 4) + 5)2$$

or

$$2((2 + 4)3 + 5)$$

or

$$((2 + 4)3 + 5)2$$

Additionally, this can be written as

$$(5 + 3(2 + 4)) + (5 + 3(2 + 4)).$$

The differing ways the calculations can be expressed also help to illustrate the commutative laws of multiplication and addition.



