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# Connections Between Adding and Subtracting, Multiplying and Dividing

$5 + 5 + 5 = 15$

$5 \times 3 = 15$

$15 \div 3 = 5$

$5 \times 3 \div 3 = 5$

The Inverse Property of Multiplication

$a \times b = ab$

$\frac{ab}{b} = a$

- 1 Determine how many ladybugs Jerome found.
- 2 Explain how the Inverse Properties of Addition and Multiplication work.
- 3 Place the equations with the correct properties and definition.
- 4 Complete the equations to make true statements. (+ multiplication)
- 5 Figure out which equations represent how many of each item Jerome has lost.
- + with many hints, answer keys, and solution approaches for all tasks



The complete package, including all tasks, hints, solutions, and solution approaches, is available to all subscribers of [sofatutor.com](https://www.sofatutor.com)

## Determine how many ladybugs Jerome found.

Fill in the gap.



Jerome has to collect ladybugs for his special potion.

He only can collect 4 ladybugs at a time.

How many ladybugs did he collect altogether if he collected three rounds?

Answer: -----

## Our hints for the tasks



### Determine how many ladybugs Jerome found.

#### 1. Hint

Jerome collects 4 ladybugs each time:

- 4 ladybugs one time
  - $4 + 4$  ladybugs two times
  - ...
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#### 2. Hint

You can also multiply 4 by 3.

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#### 3. Hint

Just add 4 three times.

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## Solutions and solution approaches for the tasks



### Determine how many ladybugs Jerome found.

**Answer key:** 12

Jerome collects 4 ladybugs at one time:

So he collects

- $4 + 4 = 8$  ladybugs two times
- $4 + 4 + 4 = 12$  ladybugs three times

You can shorten the calculation by multiplying 4 by 3:

$$4 + 4 + 4 = 4 \times 3 = 12.$$

Keep in mind that multiplication is a shorter way to write a sum with repeating summand  $a$ :

$$a + a + \dots + a = n \times a.$$