

Multiplication in Word Problems

A word problem that involves **equal-size groups** has to do with **multiplication**. Such a problem may ask...

- for the total number of objects, or
- for the number of groups, or
- for the number of the objects in each group.

A multiplication word problem doesn't always ask for the total! So, don't "blindly" multiply the numbers given in the problem. You need to think first. Drawing can help!

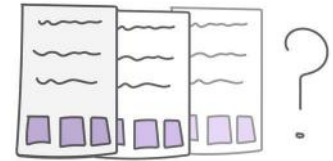
Example 1. A city has four post offices, and each post office has five workers. How many postal workers do the post offices have altogether?

This is the common situation where we have groups of equal size (groups of five workers), and there are four of them. You could draw **four** boxes (to signify the post offices), and **five** dots in each (to signify the workers).

The total number of workers is $4 \times 5 = 20$.

Example 2. Ava wrote some invitations, and put three stickers in each. She used 18 stickers. How many invitations did she write?

Here we have groups of 3 — each invitation is a “group” — but we don't know how many groups or invitations there are. We are given the total number of stickers (18), and we are asked how many groups.



You can write a missing number multiplication sentence: $3 \times \underline{\quad} = 18$. or the same thing using a letter for the unknown: $3 \times G = 18$. The answer is six invitations.

1. Circle the multiplication sentence that matches the problem. Then find the answer.

a. Adrian had fifteen toy cars, and he sorted them into three equal piles. How many cars were in each pile?

$$15 \times 3 = \underline{\quad}$$

$$3 \times \underline{\quad} = 15$$

b. Six children are playing tennis together. They each brought four tennis balls. How many balls do they have altogether?

$$4 \times b = 6$$

$$6 \times 4 = b$$