

# Multiplication as Equal Groups

Estimated time: 20 minutes | Materials: 12 small household objects, paper, and pencil

## Learning objective

Understand multiplication as equal groups and connect it to repeated addition.

## Today's assignment

Make 4 equal groups with 3 objects in each group. Draw the groups. Then write the repeated-addition sentence and multiplication sentence that describe your model.

## A clear explanation

**Start with equal groups.** Multiplication helps us count several groups that all have the same number. The groups must be equal: each group gets exactly three objects.

**Connect the model to numbers.** Four groups of three can be counted as  $3 + 3 + 3 + 3$ . That total is 12, so we can also write  $4 \times 3 = 12$ .

## Worked example

**There are 3 baskets with 5 apples in each basket. How many apples are there?**

- 1 There are 3 equal groups.
- 2 Each group contains 5 apples.
- 3 Write repeated addition:  $5 + 5 + 5 = 15$ .
- 4 Write multiplication:  $3 \times 5 = 15$ .

**Answer:** There are 15 apples.

## Hands-on activity: Build, draw, and write

About 8 minutes

**Materials:** 12 coins, buttons, blocks, cereal pieces, or other small objects; paper; pencil.

- 1 Separate the objects into 4 groups with 3 objects in each group.
- 2 Point to each group and count: 3, 6, 9, 12.
- 3 Draw four circles and place three dots in every circle.
- 4 Write  $3 + 3 + 3 + 3 = 12$  and  $4 \times 3 = 12$  beneath the drawing.

## Quick check

1. What is the total in 3 equal groups of 4?

☐ 7 ☐ 12 ☐ 16

2. Which multiplication sentence matches  $2 + 2 + 2 + 2$ ?

☐  $2 \times 2 = 4$  ☐  $4 \times 2 = 8$  ☐  $4 \times 4 = 16$

3. Which description matches  $5 \times 3$ ?

☐ 5 groups with 3 in every group

☐ 5 objects separated into unequal groups

☐ 3 objects with 5 taken away

## Printable practice

Draw a model for each problem, write repeated addition, and then write the multiplication sentence.

1 2 groups of 4

2 5 groups of 2

3 3 groups of 6

Use the space above for drawings and equations.

## Parent answer guide

1  $4 + 4 = 8$ ;  $2 \times 4 = 8$

2  $2 + 2 + 2 + 2 + 2 = 10$ ;  $5 \times 2 = 10$

3  $6 + 6 + 6 = 18$ ;  $3 \times 6 = 18$

**Quick-check answers:** 1) 12; 2)  $4 \times 2 = 8$ ; 3) 5 groups with 3 in every group.

## Parent review

Review the explanation and answer guide before use. This lesson teaches an academic concept only and does not replace the family's State Companion or official compliance instructions.