



GRADE 3 / WATCH MR DJ SOLVE

**EQUAL GROUPS AND MULTIPLICATION**

Start with the same example used in the lesson slides.

**WATCH MR DJ SOLVE****Draw 3 equal groups with 4 dots in each. Write a multiplication equation.**

- 1** Draw 3 circles.
- 2** Put 4 dots in every circle.
- 3**  $3 \times 4 = 12$  dots.

**Answer:** **12****REMEMBER** interpret multiplication as equal groups and labeled arrays.

Read each step and explain why it is valid. The next pages demonstrate the methods in more detail. Then use the large work areas on the numbered practice pages.



GRADE 3 / WORKED METHODS

# EQUAL GROUPS AND MULTIPLICATION

Read a complete example before trying the matching method.

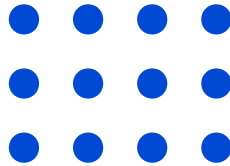


Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

## Equal groups

### 3 groups of 4 = 12

1. Count 3 equal groups.
2. Count 4 objects inside each group.
3.  $3 \times 4 = 4 + 4 + 4 = 12$ .



3 groups of 4 = 12



**GRADE 3 / WORKED METHODS**

# **EQUAL GROUPS AND MULTIPLICATION**

Read a complete example before trying the matching method.



Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

## **Rows and columns**

### **4 rows of 3 = 12**

1. Draw 4 rows with 3 dots in each.
2. Count  $3 + 3 + 3 + 3 = 12$ .
3. A turn changes the arrangement but keeps the total.

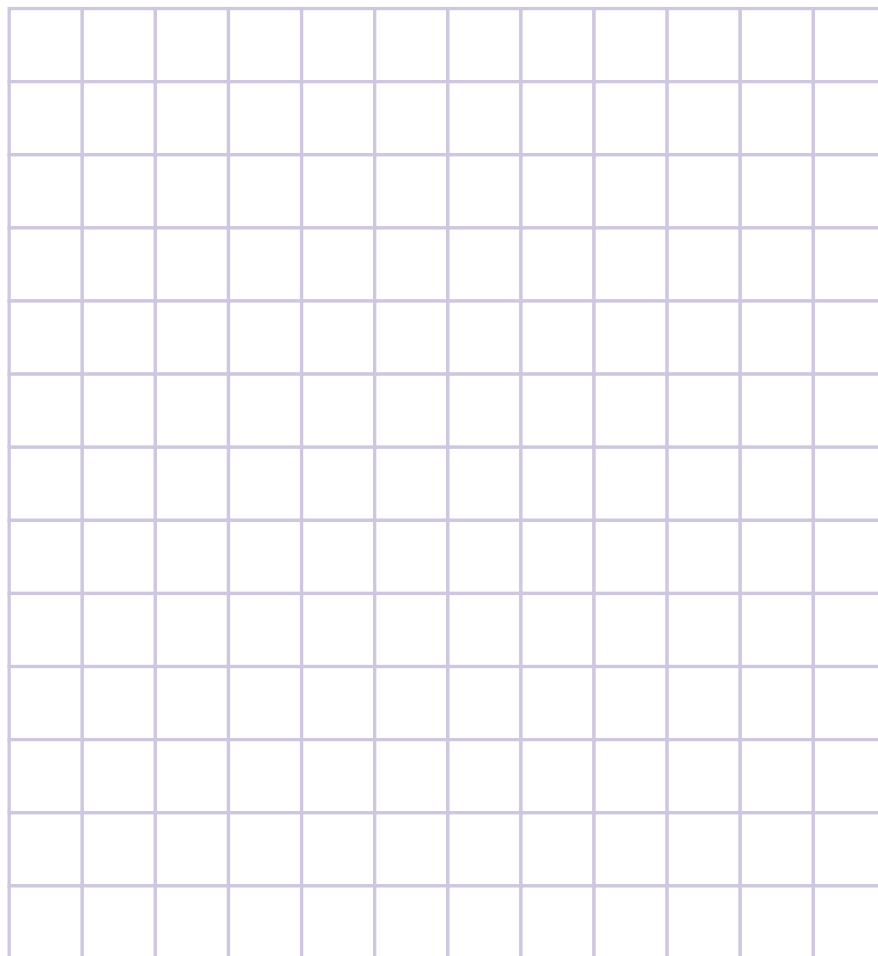
GRADE 3 / MATHEMATICAL WORK TOOL

**EQUAL GROUPS AND MULTIPLICATION**

Use labels and a clear scale.



Draw and label a model. Choose what one unit square means.





Name \_\_\_\_\_ Date \_\_\_\_\_



## GRADE 3 / PRACTICE

# EQUAL GROUPS AND MULTIPLICATION

Show the method, label your work, and explain the reasoning requested.

Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

**Mild** 1. 4 trays hold 4 muffins each. How many muffins?

My answer / conclusion: \_\_\_\_\_

**2. Write repeated addition for 4 groups of 3 counters.**

My answer / conclusion: \_\_\_\_\_



GRADE 3 / PRACTICE

## EQUAL GROUPS AND MULTIPLICATION

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔊 Medium

**3. Draw an array with 3 rows of 5 stars. Label rows and stars per row.**

My answer / conclusion: \_\_\_\_\_

🔊 Medium

**4. A box has 3 rows with 6 crayons per row. Write an equation and find the total.**

My answer / conclusion: \_\_\_\_\_



GRADE 3 / PRACTICE

## EQUAL GROUPS AND MULTIPLICATION

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔊 Medium

**5. Write a short story that matches  $5 \times 4$ . Solve your story.**

Grid area for writing the short story.

My answer / conclusion: \_\_\_\_\_



GRADE 3 / PRACTICE

## EQUAL GROUPS AND MULTIPLICATION

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔥🔥🔥 Spicy

6. Digit uses  $3+4$  for 3 groups of 4. Use a picture to explain the error.

My answer / conclusion: \_\_\_\_\_



Date \_\_\_\_\_

# EQUAL GROUPS AND MULTIPLICATION

A cartoon fox mascot with orange fur, large eyes, and a purple scarf, holding a yellow pencil.

7. Compare 3 groups of 4 with 4 groups of 3. What changes? What stays?

My answer / conclusion: \_\_\_\_\_



GRADE 3 / PRACTICE

## EQUAL GROUPS AND MULTIPLICATION

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔥🔥🔥 Extra Spicy

**8. Design two different equal-group drawings for 12 objects. Label each equation.**

My answer / conclusion: \_\_\_\_\_