

# Repeated Addition with Arrays

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 24

## Q Quick Review

To find the **total** number of objects in an array, you can use **repeated addition**. Since every row has the same number, add that number once for each row. For example, an array with 3 rows of 5 has a total of  $5 + 5 + 5 = 15$ . You can also add by columns — add the number in each column once for every column. Either way, equal groups added together give the same total. Repeated addition is a fast way to count an array.

◇ **Example:** An array has 4 rows of 3. Use repeated addition to find the total.

⇒ There are 4 rows, and each row has 3 objects. So we add 3 once for each row:  $3 + 3 + 3 + 3$ . Let's add step by step:  $3 + 3 = 6$ , then  $6 + 3 = 9$ , then  $9 + 3 = 12$ . The array has 12 objects in all.

**Answer:**  $3 + 3 + 3 + 3 = 12$

## PRACTICE

Use repeated addition to find each array total.

1. An array has 3 rows of 5. How many in all? \_\_\_\_\_
2. An array has 2 rows of 4. How many in all? \_\_\_\_\_
3. An array has 4 rows of 2. How many in all? \_\_\_\_\_
4. An array has 5 rows of 2. How many in all? \_\_\_\_\_
5. An array has 3 rows of 3. How many in all? \_\_\_\_\_
6. An array has 2 rows of 6. How many in all? \_\_\_\_\_
7. An array has 4 rows of 4. How many in all? \_\_\_\_\_
8. An array has 5 rows of 3. How many in all? \_\_\_\_\_
9. An array has 2 rows of 5. How many in all? \_\_\_\_\_
10. An array has 3 rows of 4. How many in all? \_\_\_\_\_
11. An array has 5 rows of 4. How many in all? \_\_\_\_\_
12. An array has 2 rows of 2. How many in all? \_\_\_\_\_
13. An array has 4 rows of 5. How many in all? \_\_\_\_\_
14. An array has 3 rows of 6. How many in all? \_\_\_\_\_
15. An array has 5 rows of 5. How many in all? \_\_\_\_\_
16. Write the repeated addition for 2 rows of 7. \_\_\_\_\_
17. Write the repeated addition for 3 rows of 2. \_\_\_\_\_
18. An array has 4 rows of 3. How many in all? \_\_\_\_\_
19. An array has 2 rows of 8. How many in all? \_\_\_\_\_
20. An array has 5 rows of 1. How many in all? \_\_\_\_\_

## ◆ Word Problems

21. A muffin tray has 3 rows of muffins with 4 muffins in each row. How many muffins are on the tray in all? \_\_\_\_\_
22. Mia plants flowers in 5 rows with 5 flowers in each row. How many flowers did she plant? \_\_\_\_\_
23. A parking lot has 4 rows of cars with 6 cars in each row. How many cars are parked in all? \_\_\_\_\_
24. A window has 2 rows of panes with 3 panes in each row. Use repeated addition to find the total number of panes. \_\_\_\_\_



## Answer Keys

- 15
- 8
- 8
- 10
- 9
- 12
- 16
- 15
- 10
- 12
- 20
- 4

- 20
- 18
- 25
- $7 + 7$
- $2 + 2 + 2$
- 12
- 16
- 5
- 12 muffins
- 25 flowers
- 24 cars
- 6 panes

### Step-by-Step Explanations

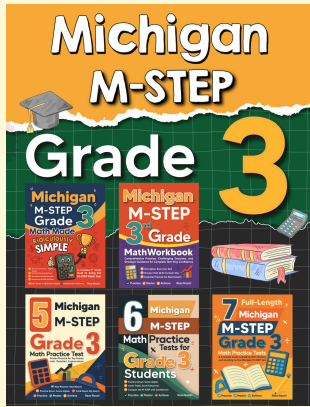
1. Add  $5 + 5 + 5 = 15$ .
2. Add  $4 + 4 = 8$ .
3. Add  $2 + 2 + 2 + 2 = 8$ .
4. Add  $2 + 2 + 2 + 2 + 2 = 10$ .
5. Add  $3 + 3 + 3 = 9$ .
6. Add  $6 + 6 = 12$ .
7. Add  $4 + 4 + 4 + 4 = 16$ .
8. Add  $3 + 3 + 3 + 3 + 3 = 15$ .
9. Add  $5 + 5 = 10$ .
10. Add  $4 + 4 + 4 = 12$ .
11. Add  $4 + 4 + 4 + 4 + 4 = 20$ .
12. Add  $2 + 2 = 4$ .

13. Add  $5 + 5 + 5 + 5 = 20$ .
14. Add  $6 + 6 + 6 = 18$ .
15. Add  $5 + 5 + 5 + 5 + 5 = 25$ .
16. Two rows of 7 means  $7 + 7$ , which equals 14.
17. Three rows of 2 means  $2 + 2 + 2$ , which equals 6.
18. Add  $3 + 3 + 3 + 3 = 12$ .
19. Add  $8 + 8 = 16$ .
20. Add  $1 + 1 + 1 + 1 + 1 = 5$ .
21. Add a 4 for each of the 3 rows:  $4 + 4 + 4 = 12$  muffins.
22. Add a 5 for each of the 5 rows:  $5 + 5 + 5 + 5 + 5 = 25$  flowers.
23. Add a 6 for each of the 4 rows:  $6 + 6 + 6 + 6 = 24$  cars.
24. Add a 3 for each of the 2 rows:  $3 + 3 = 6$  panes.



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