

# 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

- |        |                |
|--------|----------------|
| 1. 15  | 13. 20         |
| 2. 8   | 14. 18         |
| 3. 8   | 15. 25         |
| 4. 10  | 16. 7 + 7      |
| 5. 9   | 17. 2 + 2 + 2  |
| 6. 12  | 18. 12         |
| 7. 16  | 19. 16         |
| 8. 15  | 20. 5          |
| 9. 10  | 21. 12 muffins |
| 10. 12 | 22. 25 flowers |
| 11. 20 | 23. 24 cars    |
| 12. 4  | 24. 6 panes    |

### Step-by-Step Explanations

- |                                    |   |
|------------------------------------|---|
| 1. Add $5 + 5 + 5 = 15$ .          | 13. Add $5 + 5 + 5 + 5 = 20$ .  |
| 2. Add $4 + 4 = 8$ .               | 14. Add $6 + 6 + 6 = 18$ .  |
| 3. Add $2 + 2 + 2 + 2 = 8$ .       | 15. Add $5 + 5 + 5 + 5 + 5 = 25$ .                                    |
| 4. Add $2 + 2 + 2 + 2 + 2 = 10$ .  | 16. Two rows of 7 means $7 + 7$ , which equals 14.                    |
| 5. Add $3 + 3 + 3 = 9$ .           | 17. Three rows of 2 means $2 + 2 + 2$ , which equals 6.               |
| 6. Add $6 + 6 = 12$ .              | 18. Add $3 + 3 + 3 + 3 = 12$ .  |
| 7. Add $4 + 4 + 4 + 4 = 16$ .      | 19. Add $8 + 8 = 16$ .  |
| 8. Add $3 + 3 + 3 + 3 + 3 = 15$ .  | 20. Add $1 + 1 + 1 + 1 + 1 = 5$ .                                     |
| 9. Add $5 + 5 = 10$ .              | 21. Add a 4 for each of the 3 rows: $4 + 4 + 4 = 12$ muffins.         |
| 10. Add $4 + 4 + 4 = 12$ .         | 22. Add a 5 for each of the 5 rows: $5 + 5 + 5 + 5 + 5 = 25$ flowers. |
| 11. Add $4 + 4 + 4 + 4 + 4 = 20$ . | 23. Add a 6 for each of the 4 rows: $6 + 6 + 6 + 6 = 24$ cars.        |
| 12. Add $2 + 2 = 4$ .              | 24. Add a 3 for each of the 2 rows: $3 + 3 = 6$ panes.                |



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