

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

2. 8

3. 8

4. 10

5. 9

6. 12

7. 16

8. 15

9. 10

10. 12

11. 20

12. 4

13. 20

14. 18

15. 25

16. 7 + 7

17. 2 + 2 + 2

18. 12

19. 16

20. 5

21. 12 muffins

22. 25 flowers

23. 24 cars

24. 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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