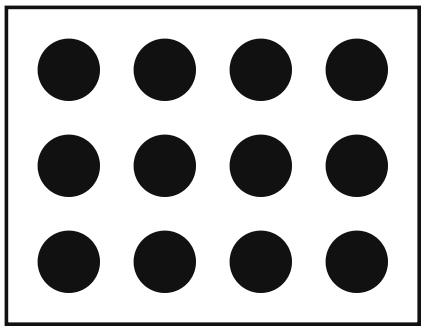
Grade 3 Unit 1 worksheet: Arrays (answer key)

ANSWERS AT A GLANCE

1. 3 rows; 4 muffins in each row; 3 × 4 = 12 muffins.
2. 6 × 9 = 54; 54 cars.
3. Any two of: 1 × 8 = 8, 2 × 4 = 8, 4 × 2 = 8, 8 × 1 = 8.
4. She added 3 + 5. There are 3 × 5 = 15 dots.
5. A: no. B: yes.

WORKED SOLUTIONS

1. Look at the muffin tray. Fill in the blanks.



Rows: _____ Muffins in each row: _____

Muffins in all: ☐ × ☐ = _____

ANSWER

3 rows; 4 muffins in each row; 3 × 4 = 12 muffins.

SOLUTION

Count the rows going across: 3. Count the muffins in one row: 4.

Each row is a group of 4, and there are 3 rows. Skip-count by fours: 4, 8, 12. So 3 × 4 = 12 muffins.

2. Olivia lines up toy cars in 6 rows. Each row has 9 cars. Write a multiplication. How many cars are there?

ANSWER

6 × 9 = 54; 54 cars.

SOLUTION

Each row is a group of 9 cars, and there are 6 rows. So the cars are 6 groups of 9:

$$6 \times 9 = 54$$

There are 54 cars. Check by adding one 9 for each row.

3. Ben has 8 blocks. Draw two different arrays of 8 blocks. Write a multiplication for each.

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ANSWER

Any two of: 1 × 8 = 8, 2 × 4 = 8, 4 × 2 = 8, 8 × 1 = 8.

SOLUTION

Try rows of different sizes and see which come out even.

1 row of 8: 1 × 8 = 8. 2 rows of 4: 2 × 4 = 8. 4 rows of 2: 4 × 2 = 8. 8 rows of 1: 8 × 1 = 8.

Rows of 3 do not work: 2 × 3 = 6 and 3 × 3 = 9. Any two of the four arrays are correct.

4. Lily sees 3 rows of 5 dots. She says there are 8 dots. What did she do wrong? How many dots are there?

ANSWER

She added 3 + 5. There are 3 × 5 = 15 dots.

SOLUTION

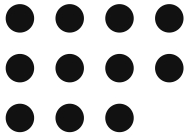
Lily added the number of rows and the number in each row: 3 + 5 = 8.

But each row has 5 dots, and there are 3 rows. That is 3 groups of 5: 5 + 5 + 5 = 15. So 3 × 5 = 15 dots.

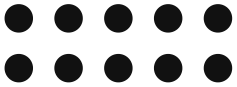
5. Is it an array? Circle yes or no for each.

A: yes no B: yes no

A



B



ANSWER

A: no. B: yes.

SOLUTION

A has rows of 4, 4 and 3. The rows are not equal, so A is not an array.

B has 2 rows, and each row has 5 dots. The rows are equal, so B is an array. It shows 2 × 5 = 10.

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