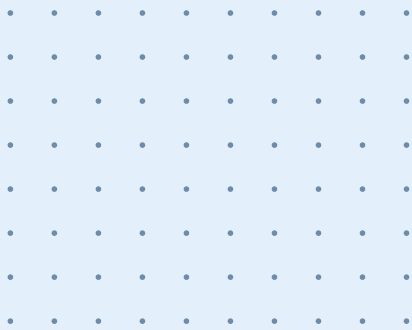


BUILDING A 4-BY-3 GAME-TOKEN ARRAY

- 1 Draw 4 neat rows with 3 tokens in each row.
- 2 Write the repeated addition under it: $3 + 3 + 3 + 3$.
- 3 Write both multiplication facts the array shows: 4×3 and 3×4 .

WARM-UP

Ring equal rows on the dot lattice to build each array and write what it shows.



1. Ring 6 rows of 7 dots and write both multiplication facts the array shows
2. Ring 3 rows of 5 dots and write the matching repeated addition
3. Ring 4 rows of 6 dots then ring a different array that has the same total of 24

PRACTICE

- 1 In hopscotch the children chalk 7 rows of 8 marks. How many marks make the full array? _____
- 2 Mia sets out 2 rows of 6 counters to start a board game. What total does her array hold? _____
- 3 Three friends each bring 4 toy cars for a race game. Write the repeated addition and find the total cars. _____
- 4 For a playground relay there are 5 lines of 2 cones. Find the total cones in the array. _____

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- | | |
|---|--|
| a. Three rows of five make the same total as five rows of three. <input type="text"/> | c. Turning an array a quarter-turn changes how many counters there are. <input type="text"/> |
| b. An array of equal rows can be written as repeated addition. <input type="text"/> | d. $4 + 4 + 4$ is the same as 4×3 . <input type="text"/> |

REFLECT

Did turning the array change the answer? What stayed the same?