Name _____ Date _____

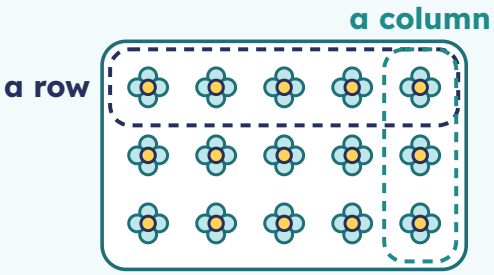
Rows and columns

An array puts things in neat rows. Every row has the same number.

1 Learn



This is an **array**. **Rows** go across. **Columns** go down. Every row has the same number, so it's equal groups in a line!

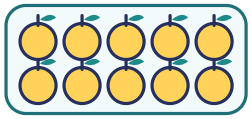


3 rows of 5

5 + 5 + 5 = 15

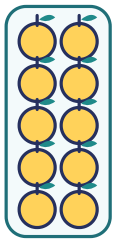
3 × 5 = 15

We say "3 times 5 equals 15".



2 × 5 = 10

turn it



5 × 2 = 10

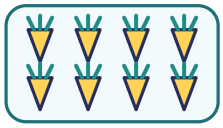
Turn it round! 2 rows of 5 turned on its side is 5 rows of 2.

The apples didn't change, so the total is the same: **10**.

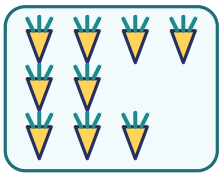
We can multiply in any order.

Flip's tip: count the rows, then how many in **one** row. 3 rows of 5 is 5 + 5 + 5 = 15. Don't add the rows to the columns: 3 + 5 is not the answer!

Warm up: is it an array? Ring **yes** or **no**.



yes **no**

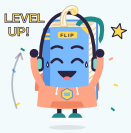


yes **no**

Grown-ups: read Flip's words aloud. Run a finger along each row as your child counts. The × sign is new here: read it as "times" or "rows of".

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2 Try it together a child and a grown-up, about 10 minutes



Array hunt

You need: 20 small things (dry pasta, pegs or small blocks), a sheet of paper or a tray, and a pencil.

1. On the paper, make **2 rows of 5**. Count the total and fill in the table.
2. Turn the paper round a quarter turn. Now there are **5 rows of 2**. Is the total the same?
3. Do the same with **4 rows of 5**, then turn it round.
4. Hunt for an array at home (an egg box, a muffin tray, window panes, a pack of yoghurts). Draw it.

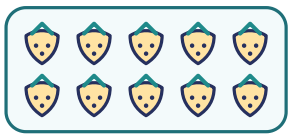
Rows	In each row	Total
2	5	
5	2	
4	5	
5	4	

An array I found at home:

Grown-ups: turning the array is the key moment: nothing was added or taken away, so the total must be the same. That's why 4 × 5 and 5 × 4 are both 20.

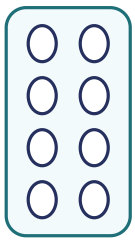
3 Practise

A. Look at each array. Fill in the gaps.



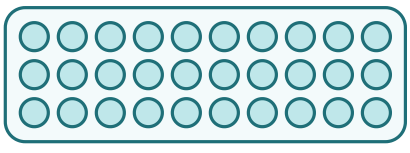
___ rows of ___

___ × ___ = ___



___ rows of ___

___ × ___ = ___



___ rows of ___

___ × ___ = ___

Rows and columns

Scan to play this chapter in the game

Name _____ Date _____

B. Draw the array. Write the total.

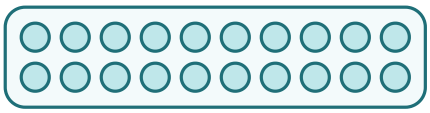
4 rows of 5

total = ____

5 rows of 2

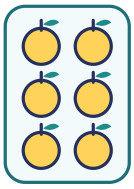
total = ____

C. Write **two** multiplications for each array.



□ × □ = □

□ × □ = □



□ × □ = □

□ × □ = □

D. Fill the gaps. Turning an array round can help!

5 × 2 = 2 × □ **10 × 4 = □ × 10** **2 × 7 = 7 × □**

Challenge

Ava looks at an array with **4 rows of 5**. She says, "That's 9, because 4 + 5 = 9." Is she right? How many are there really?

I can... Tick when you can.

- ☐ say how many rows and how many in each row
- ☐ write a multiplication for an array
- ☐ see that 2 × 5 and 5 × 2 make the same total