Maths
Friday 3rd July
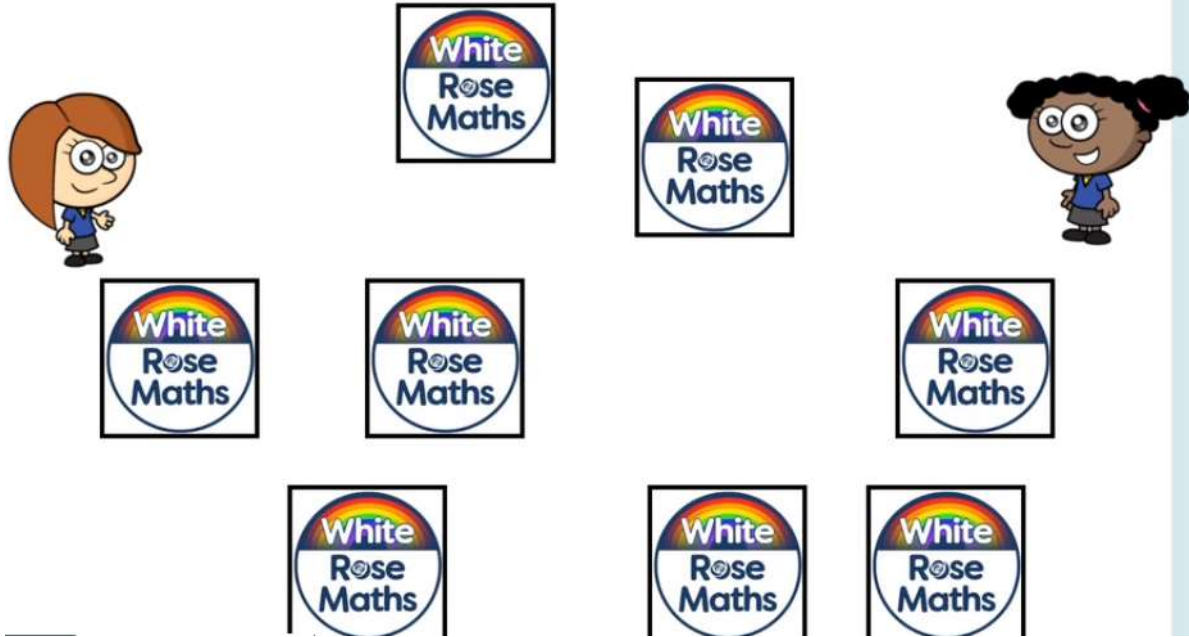L.O. To use arrays

A game of pairs

2 x 2

This is a 2 x 2 array

2 x 3
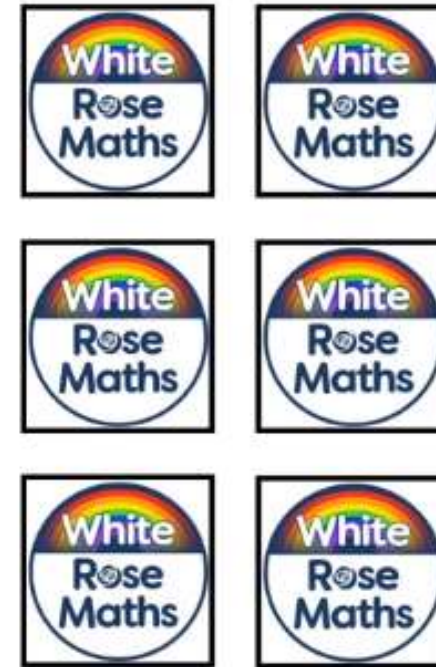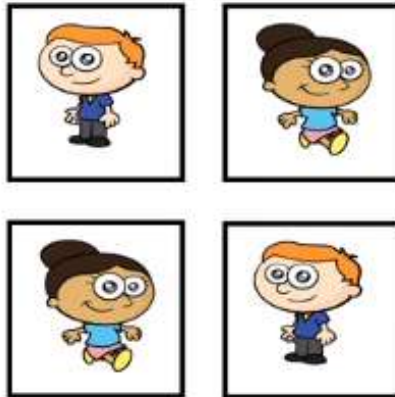
If we add one more pair, we have a 2 x 3 array.
There are 2 cards in each row, and three rows.
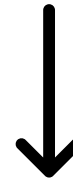
A game of pairs

An array has <u>rows</u> and <u>columns</u> and is <u>rectangular</u> in shape. See if you can find 8 cards or other objects in your house and arrange them in an array with rows and columns.

rows →

columns ↓

If we add 2 more cards, can we still make an array?

A game of pairs

Have a go ⏸

4 x 2

Your array could look like this. Or maybe you made a 2 x 4 array?

What happens if we add one more card – can you make an array with 9 objects?

A game of pairs

Have a go ⏸ You can count in...

3 x 3

3 + 3 + 3

3 x 3

3 x 3
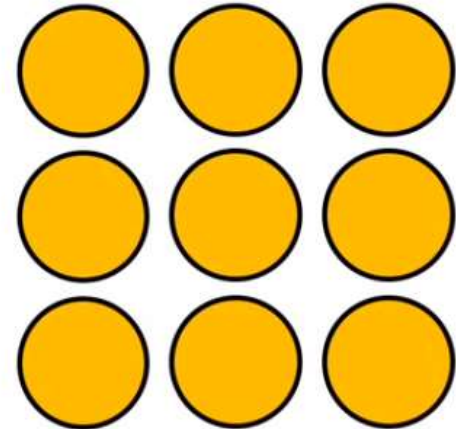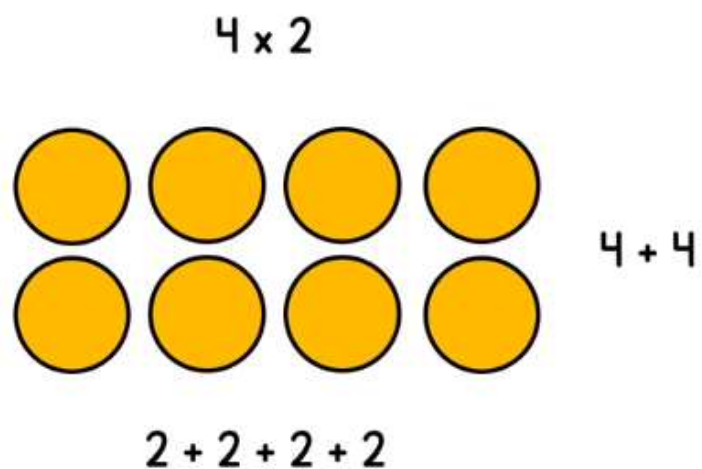
3 + 3 + 3

They made a 3 x 3 array.

With a 3 x 3 array we can count in 3s to find the total.

You can count in...

4 x 2

4 + 4

2 + 2 + 2 + 2

□ x □

□ + □

□ + □ + □

With a 4 x 2 array we can count in 2s or 4s to find the total.
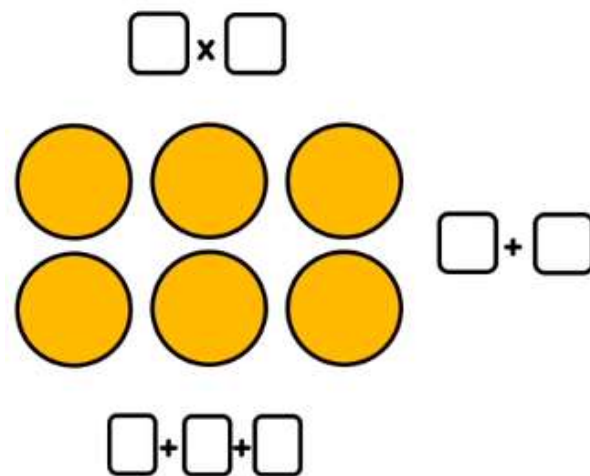
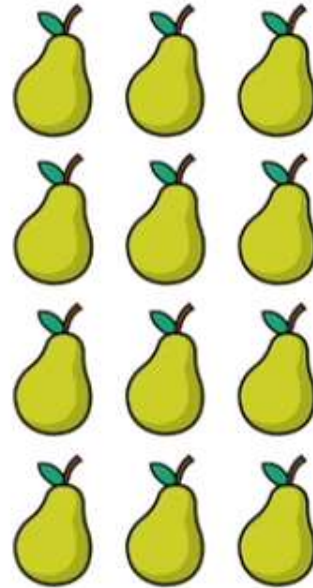**Have a go at filling in the blanks for this array.**

You can count in...

2 x 3

3 + 3

2 + 2 + 2

Have a go ⏸

☐ x ☐

☐ + ☐ + ☐ + ☐

☐ + ☐ + ☐

Now try this one.

3 x 4

3 + 3 + 3 + 3

4 + 4 + 4
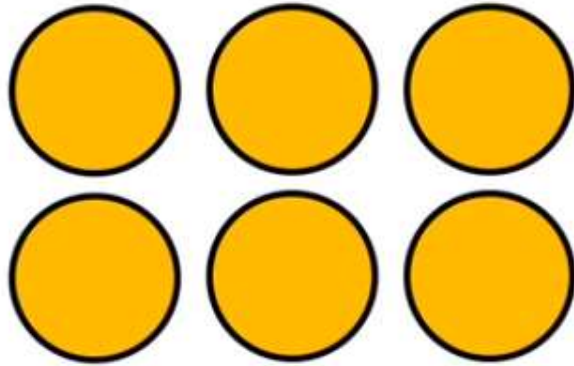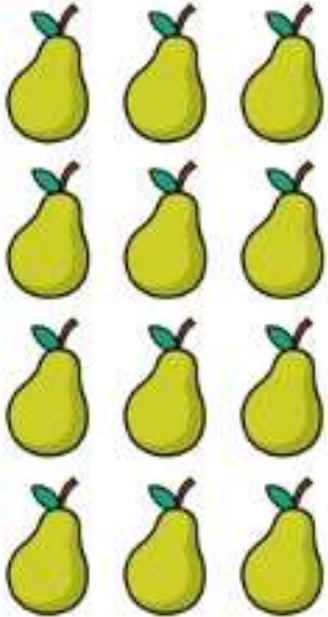
With a 3 x 4 array we can count in 3s or 4s to find the total.

Drawing arrays

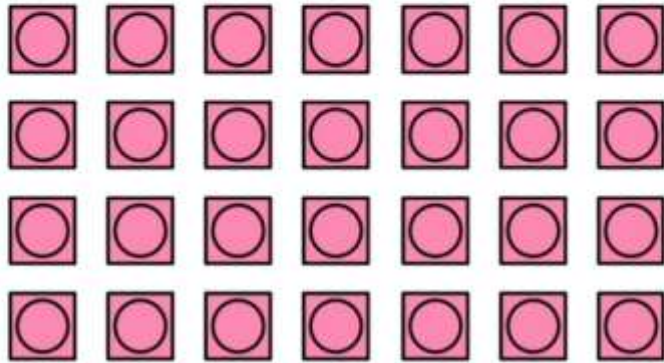You can't draw a 7 x 4 array because 7 is an odd number.

Is she right? Try and draw a 7 x 4 array.

Drawing arrays

You can't draw a 7 x 4 array because 7 is an odd number.

$7 \times 4 = 28$ or $4 \times 7 = 28$

You can make a 7 x 4 array!

6 x 1

How many arrays can you make with these 6 cans? The first array (6 x 1) has been done for you.
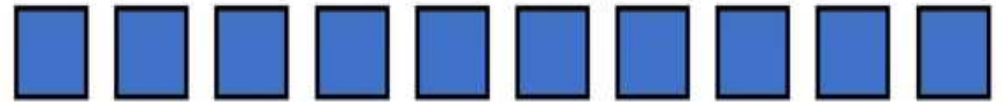
How many arrays can we make with 6 cans?

What can you see?

Have a go ⏸

6 x 1

3 x 2

2 x 3

1 x 6

You could have made four different arrays.

What can you see?

I can see 2 x 5

I can see 5 x 2
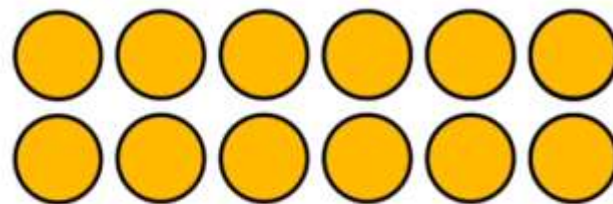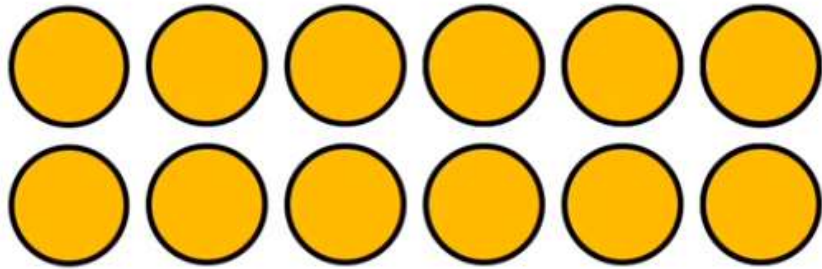
I can see 10 x 1

I can see 1 x 10

What can you see?

Have a go

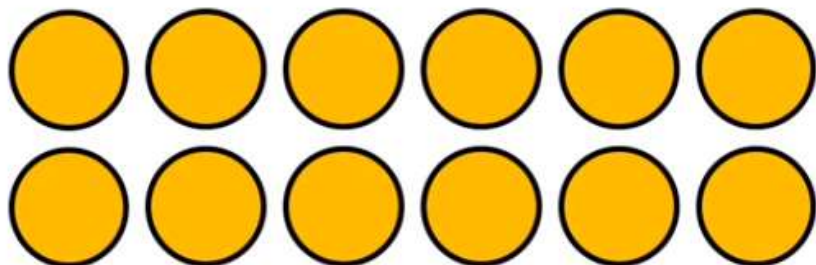What can you see?

Have a go ⏸

1 x 12

2 x 6

3 x 4

4 x 3

6 x 2

12 x 1

Before, we thought this was just a 6 x 2 array. Actually, we can see that it's much more than that.

What can you see?

6 x 2

1 x 12

2 x 6

3 x 4

4 x 3
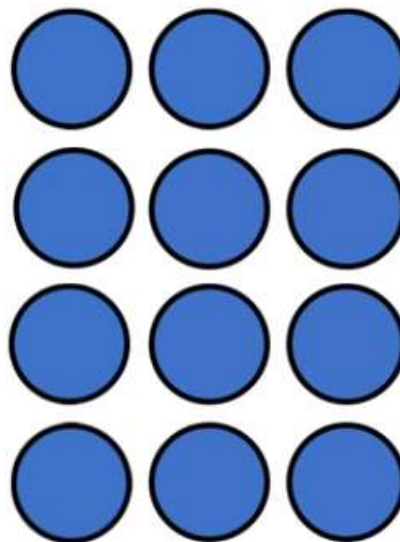
6 x 2

12 x 1

Have a go **||**

3 x 4

With arrays, we can see a pattern emerging. If we halve one number from our array and double the other, we create an equivalent array.

CHALLENGE: Try to experiment and see if this works every time.