

Maths

Week 4 - Multiplication

Session 1 - Multiplication

What is it?

Sometimes we can use arrays to help us.

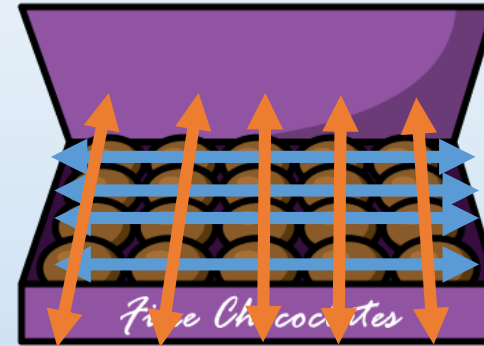
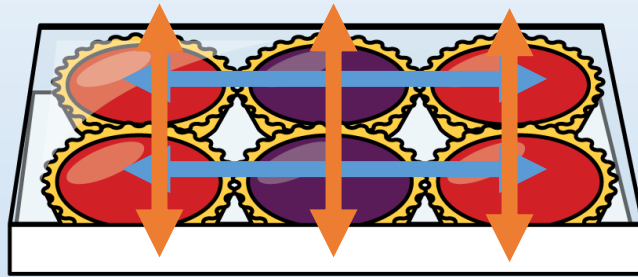
Everything needs to be equal (rows and columns)

What Is an Array?

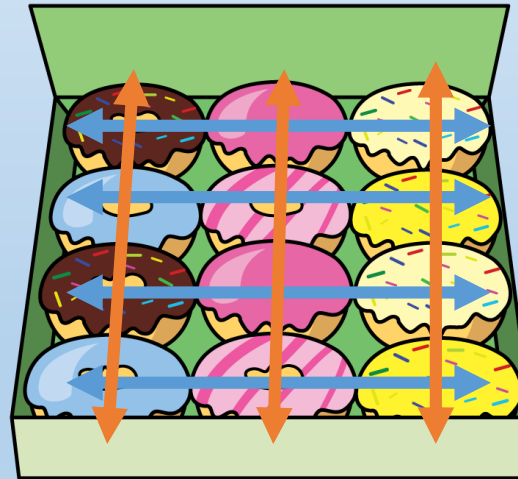
When pictures or objects are put into columns and rows, it is called an array.
They can help us to count objects more efficiently.

<https://www.bbc.co.uk/teach/class-clips-video/maths-ks1--ks2-how-to-use-arrays-to-multiply/zrks382>

Arrays have rows and columns

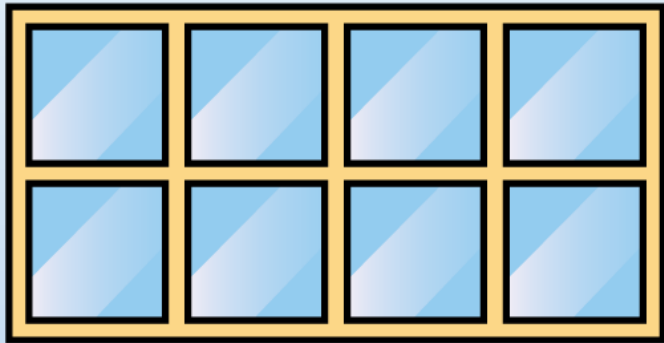


Rows
←→

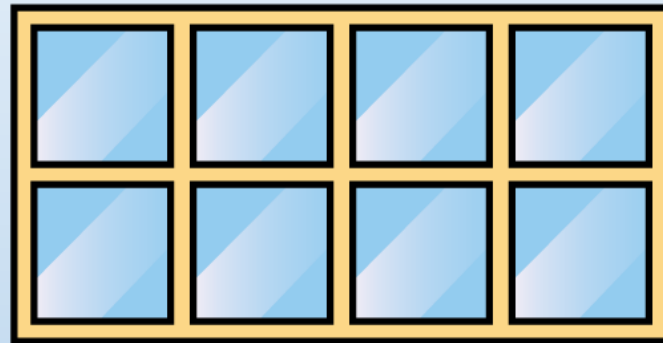


Columns
↑↓

How many columns/rows are in these arrays?

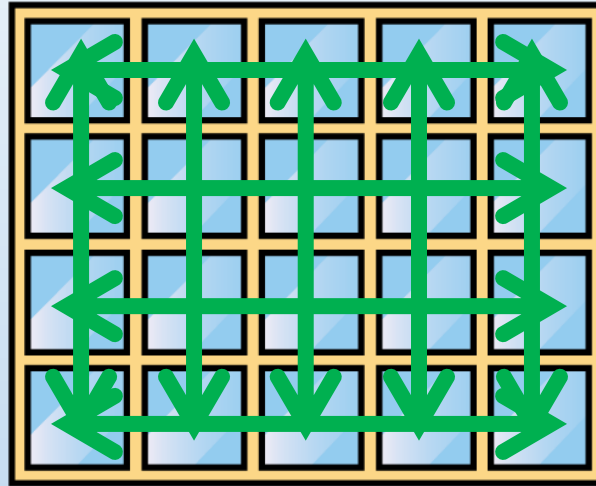


There are columns.



There are rows.

How many windows?



There are rows.

There are columns.

There are windows altogether.

On your whiteboard write the following:

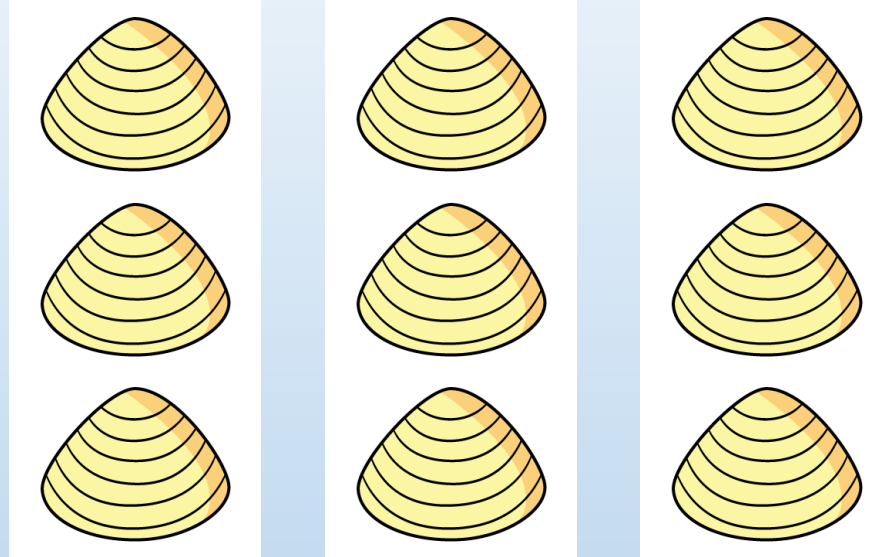
rows

columns

altogether

Your turn

How many shells?



There are rows.

There are columns.

There are shells altogether.

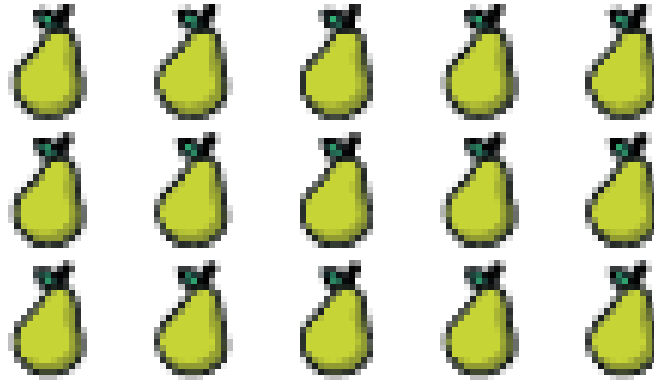
Your turn

How many stars are there?



Your turn

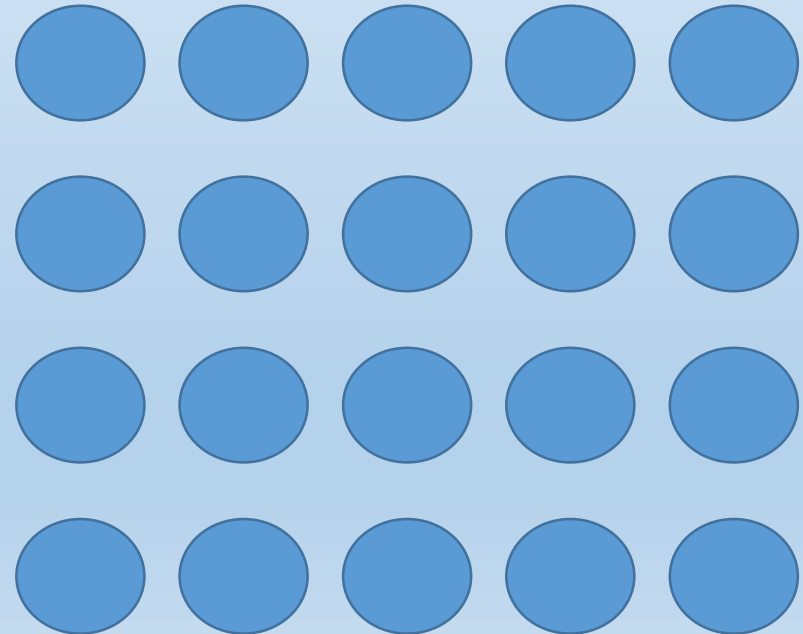
How many pears are there?



Task:

Take a handful of counters.

What arrays can you make from them?



Plenary

Draw three different arrays to show 12

Session 2

Multiplication

Division

What do you know?

2, 4, 6

5, 10, 15

10, 20, 30

3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

What is an Array?

What do you know?

What Is an Array?

When pictures or objects are put into columns and rows, it is called an array. They can help us to count objects more efficiently.

How many planets
in each row?

2



How many rows
are there?

8

$$2 \times 8 = 16$$

What is this array showing?



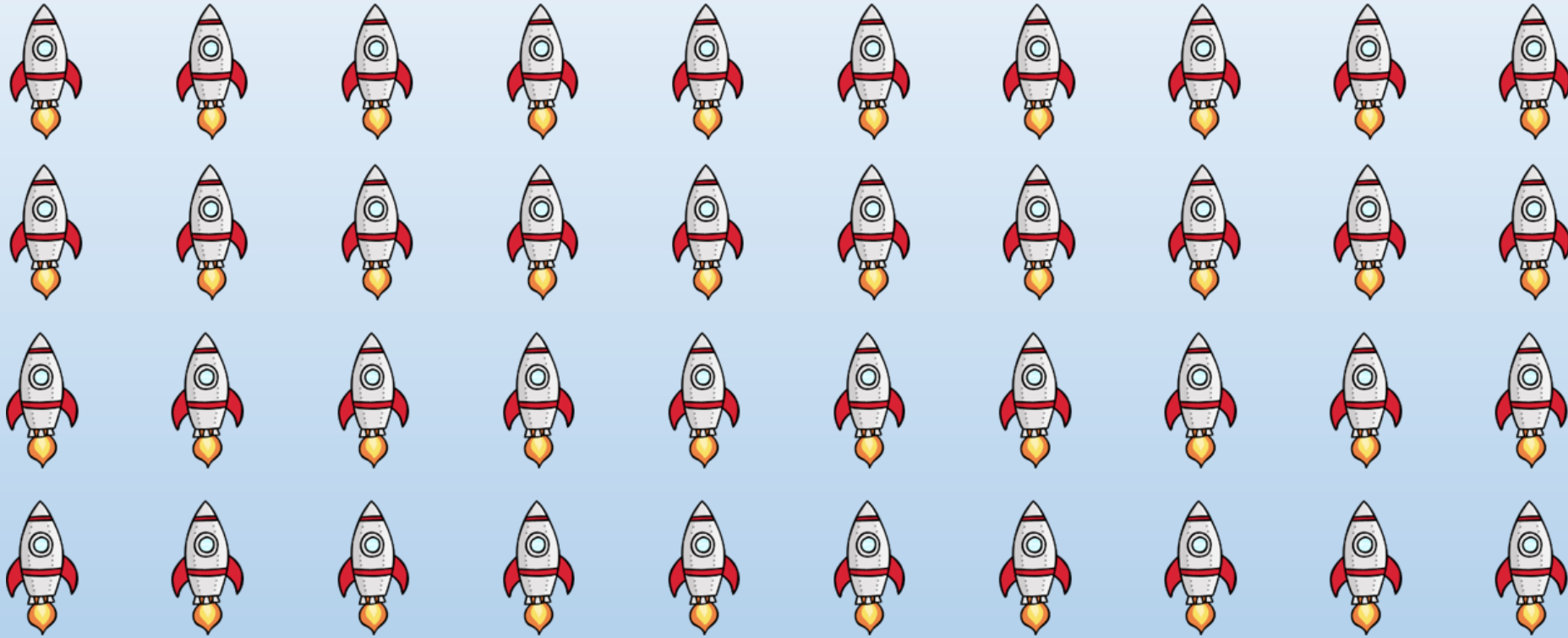
$$5 \times 3 = 15$$

What is this array showing?



$$5 \times 5 = 25$$

What is this array showing?





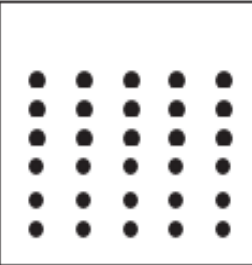
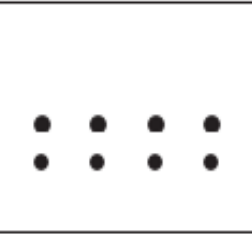
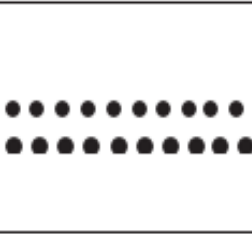
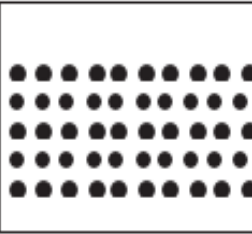
$$10 \times 4 = 40$$

Task

Complete the multiplication calculations that the arrays are showing. Once you have done this your challenge is to draw your own arrays from the calculation given.

Arrays

Write two multiplication sentences for each array.

		
$3 \times 4 = 12$ $4 \times 3 = 12$		
		

CHALLENGE!

Draw arrays for these number sequences.

$6 \times 3 = 18$	$5 \times 2 = 10$	$3 \times 1 = 3$
$4 \times 10 = 40$	$2 \times 2 = 4$	$7 \times 5 = 35$

Plenary

1

$10 \times 10 =$

2

$8 \times 3 =$

3

$3 \times 2 =$

4

$9 \times 10 =$

5

$5 \times 12 =$

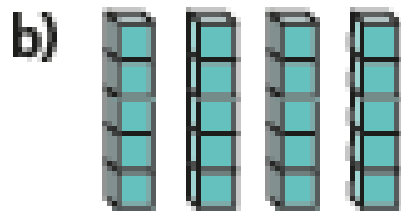
6

$5 \times 6 =$

7

$6 \times 2 =$

Write one addition and one multiplication sentence for each.



Session 3

Let's count in 2s.

What can you tell me about the 2 times tables?

1

Count in 2s to calculate how many eyes there are.

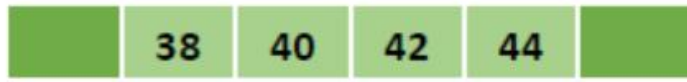
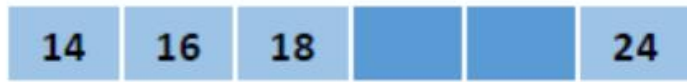


There are eyes in total.

$$\square \times \square = \square$$

2

Complete the number track.



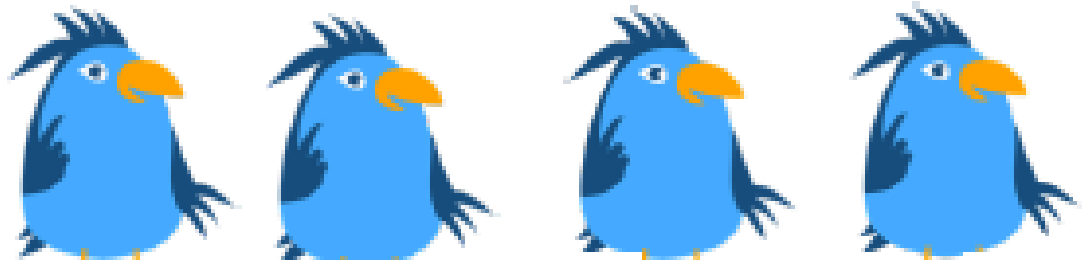
3

There are 14 wheels, how many bikes are there?



Draw a picture and write a number sentence to show your answer.

How many legs will 4 birds have?



Draw a picture and write a number sentence to show your answer.

How many socks will 4 children need?



How much money is here?



p

Sweets cost 2p each. How much will 3 sweets cost?



How many eyes do 7 children have?



Plenary

Fill in the missing boxes.

$$3 \times \square = 6$$

$$\square \times 2 = 20$$

$$7 \times 2 = \square$$

Thomas says that $10 \times 2 = 22$

Is he correct?

Explain how you know.



Every number
in the 2 times
table is even.

Is Amber correct?

Explain your answer.

Fill in the missing boxes.

$$3 \times \square = 6$$

$$\square \times 2 = 20$$

$$7 \times 2 = \square$$

Thomas says that $10 \times 2 = 22$

Is he correct?

Explain how you know.

2

10

14

No, the answer should be 20. Children could draw an array or a picture to show their answer.



Every number in the 2 times table is even.

Is Amber correct?

Explain your answer.

Yes because 2 is even, and the 2 times table is going up in 2s and when you add two even numbers the answer is always even.

Session 4

Let's count in 5s.

What can you tell me about the 5 times tables?

How many aliens are there? How did you count them?



There are 5 eggs in each box. How many eggs are there altogether? Write a number sentence to show your answer.



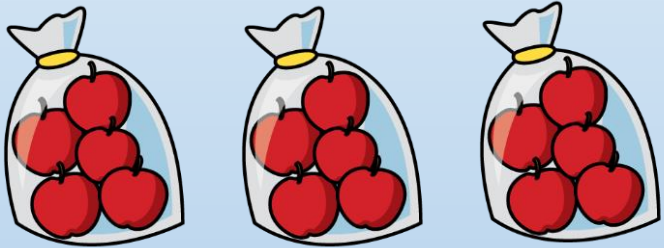
How many eggs will there be in 2 boxes? Draw a picture and write a number sentence to show your answer.

Task

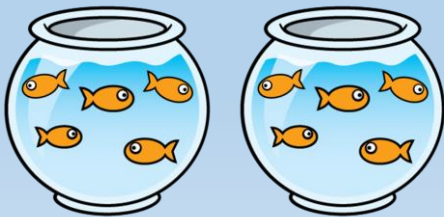
Match with the correct calculation



3×5



2×5



5×5

Fill in the missing numbers.

15, 20, 25, _____, 35, 40, 45

45, _____, 55, 60, 65, 70, _____

30, _____, 40, 45, 50, 55, _____

75, _____, _____, 90, 95, 100

Fill in the missing numbers into the number sentences

$$5 \times 6 = \square$$

$$5 \times \square = 45$$

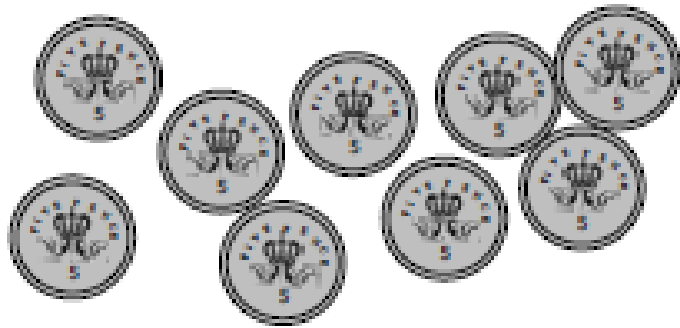
$$\square = 5 \times 2$$

$$15 = \square \times 5$$

How much money is here? Explain how you counted them.



$$\underline{\quad} \times 5 = \underline{\quad}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Plenary

A sandwich costs £2 and a box of crayons costs £5



Jack buys 5 sandwiches and 3 boxes of crayons.
How much does he spend in total?

Jack spends £

Session 5

Katie is having a party.

Cakes come in packs of 2 or 10.

Katie bought 20 cakes. How many of each pack did she buy?



Katie is having a party.

Cakes come in packs of 2 or 10.

Katie bought 20 cakes. How many of each pack did she buy?



Katie is having a party.

Cakes come in packs of 2 or 10.

Katie bought 30 cakes. How many of each pack did she buy?



Challenge: What if the cakes also came in packs of 5?
What if the cakes also came in packs of 3?