LO: To be able to find factor pairs.

Today we are going to work on factor pairs and how to find all factor pairs for a given number.
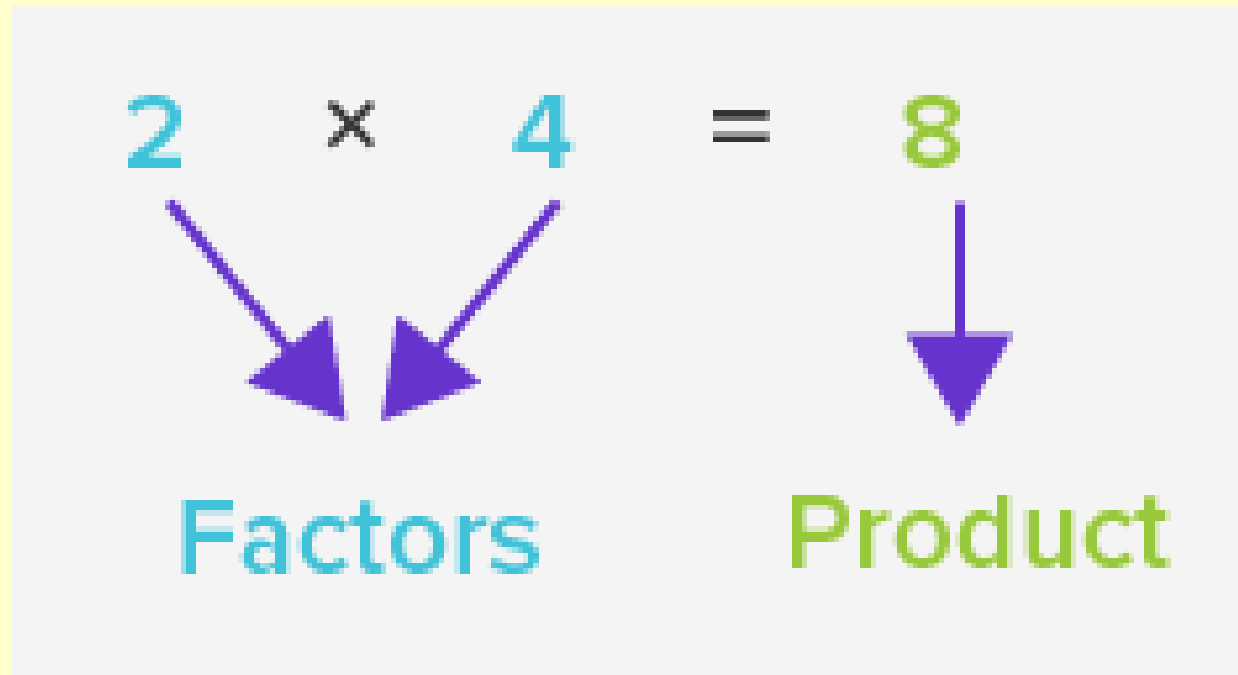
But first, warm up.

My answer is 100. What is the question?
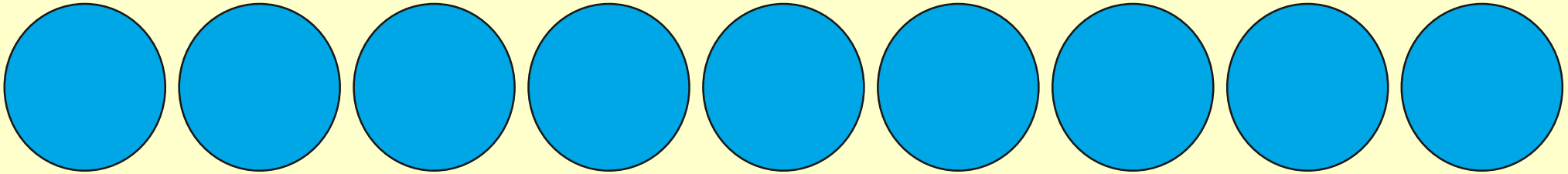
What is a factor?

Factors are numbers that multiply together to get another number (the product).
The factor will divide into the product exactly.

$2 \times 4 = 8$

Factors   Product

Let's look at factors of 9.

When finding factors I like to use a system and start with 1. Then work up so you know you have found them all.

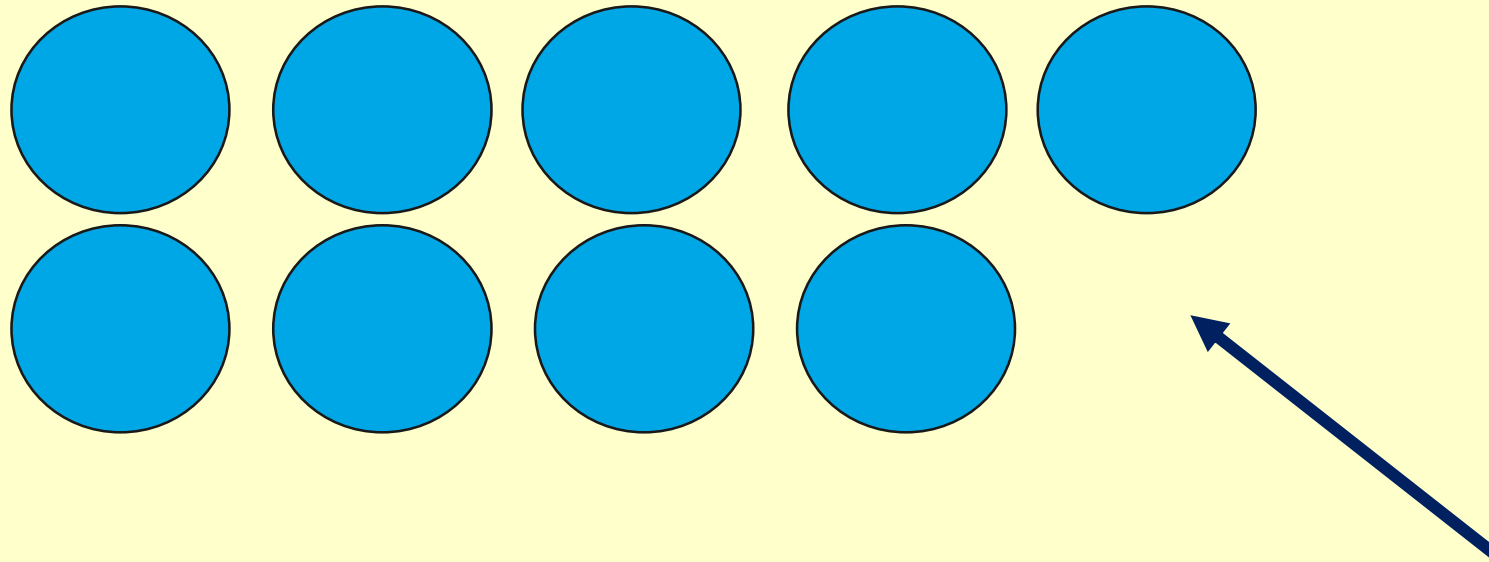There is 1 lot of 9.
1 x 9 = 9.
Factor pair: 1 and 9.

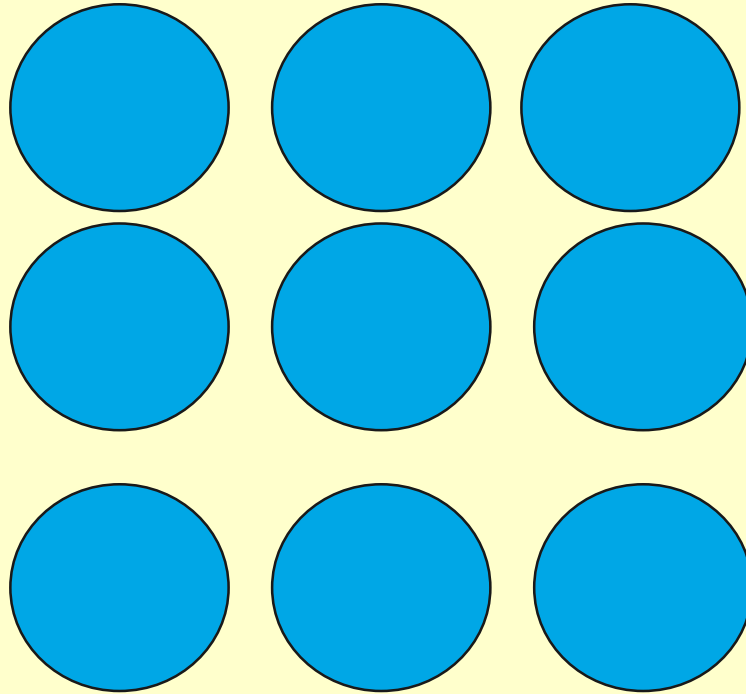# Let's look at factors of 9.

Now lets try 2.

I have sorted my 9 counters into groups of 2. However, they do not divide equally.

So, 2 is not a factor of 9.

Let's look at factors of 9.

Now lets try 3.

There are 3 groups of 3.
3 x 3 = 9.
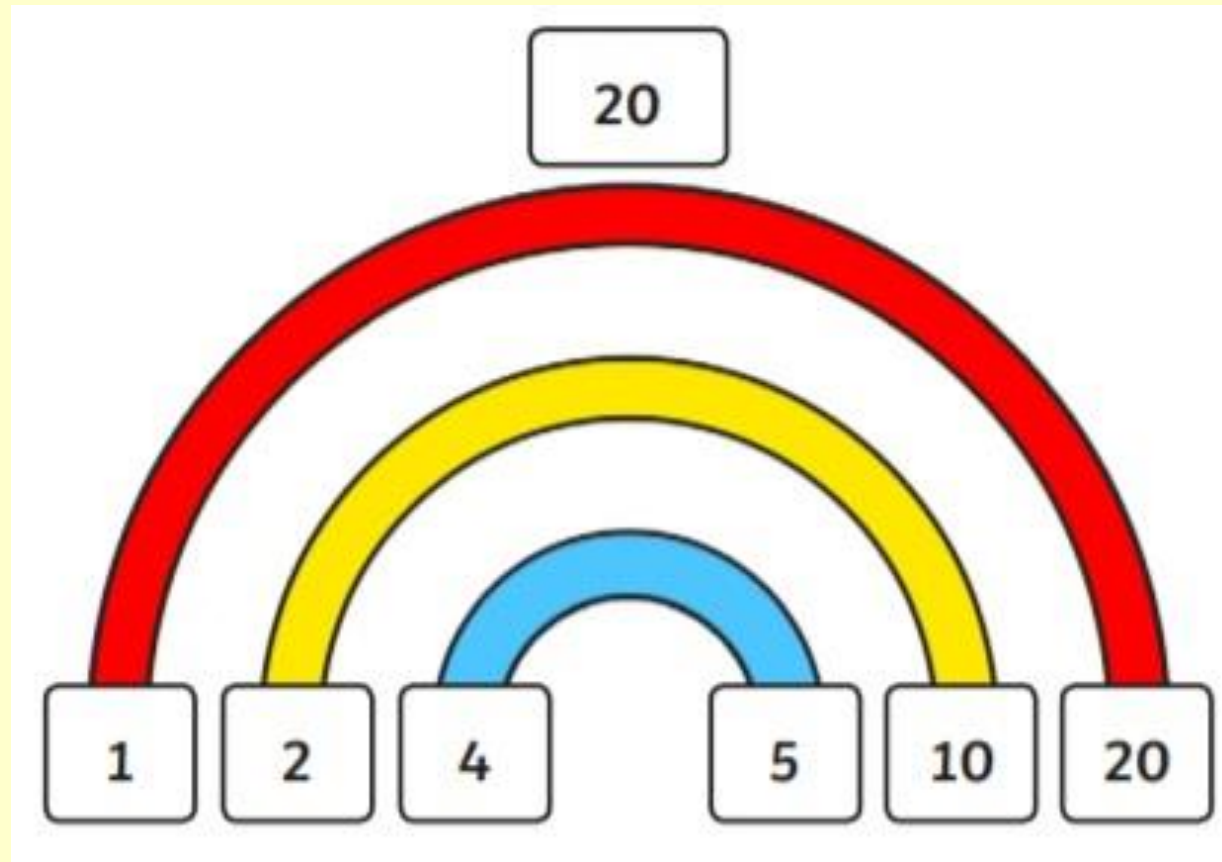**So 3 is a factor of 9.**

Your turn,

Can you use the same method to find the factor pair of 20? You can draw counters to help you if you need to.

Start with 1 and 20.

2 and ___

Your turn,

Check the factor rainbow below. Were you correct?

Can you circle all the numbers that are not factors of 30? If working on paper can you write them down?

Remember start with each number in turn, if you could up in that number will you reach 30?

1	2	3	4	5
6	7	8	9	10

Can you find 2 more factors for 30 that are not in the list above?

Can you circle all the numbers that are not factors of 30? If working on paper can you write them down?
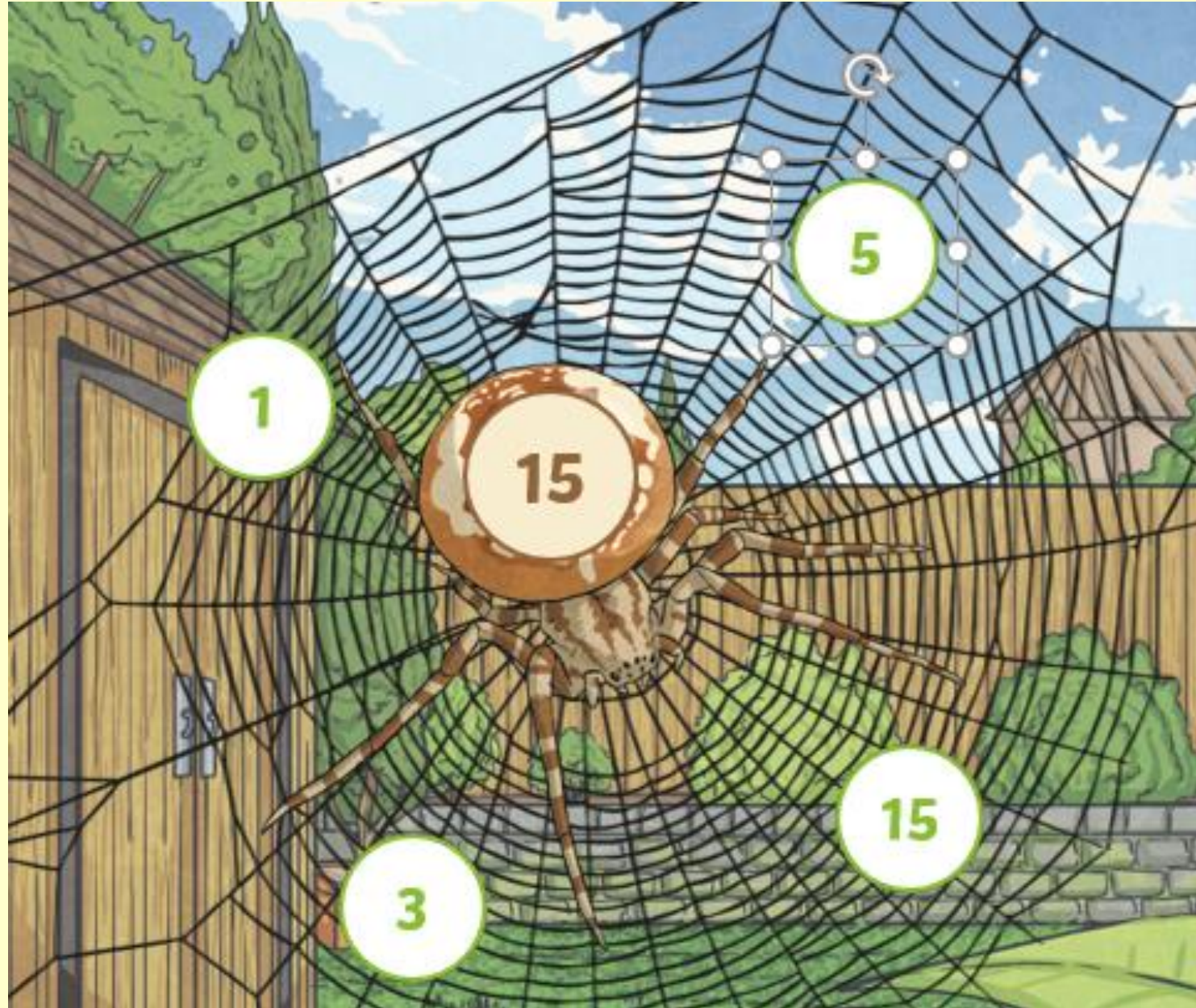
1	2	3	(4)	5
6	(7)	(8)	(9)	10

Can you find 2 more factors for 30 that are not in the list above?

15   30

Complete the factor spider web.
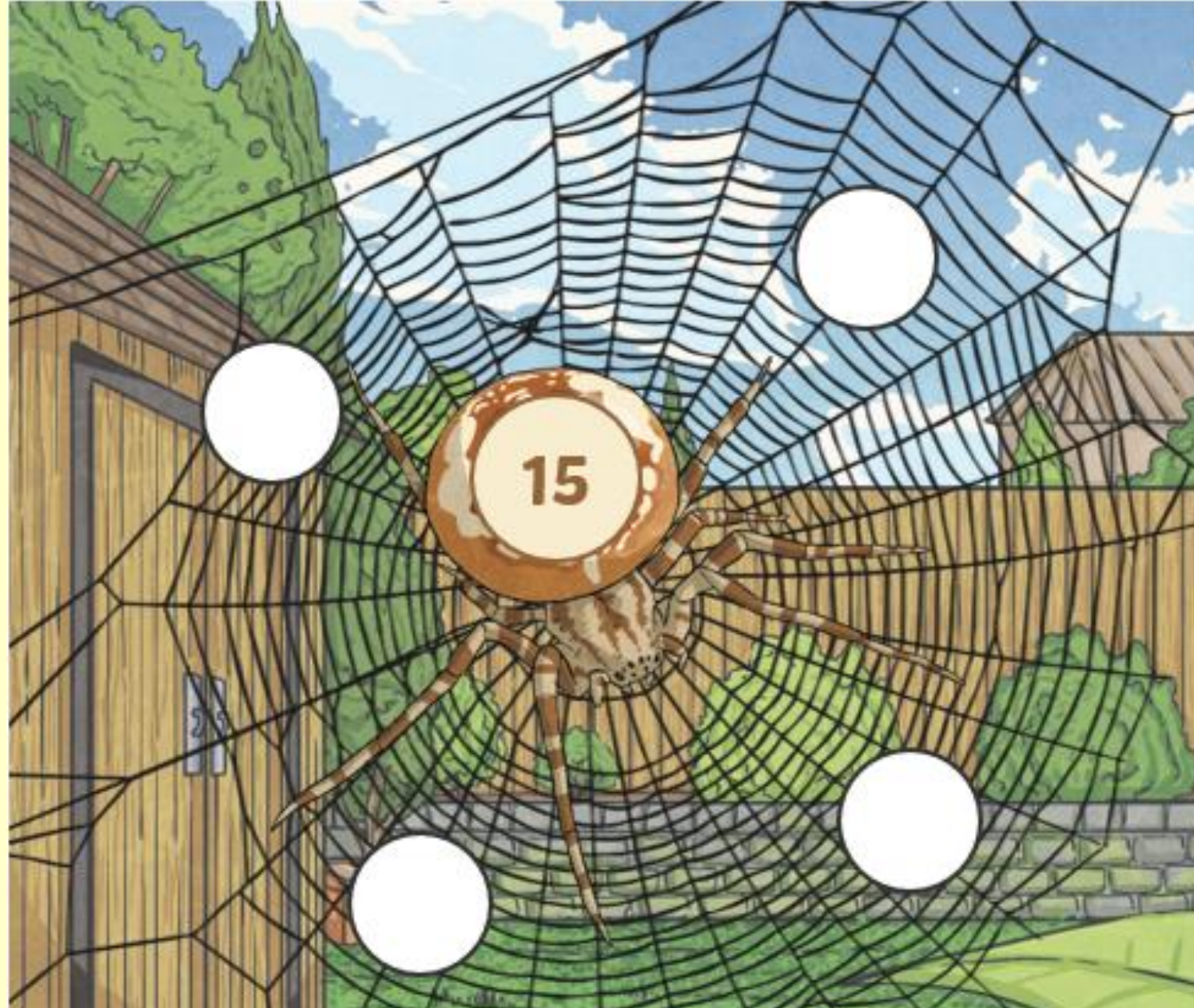
Were you correct?

Well done! You can now start the worksheet for your year group.

You may be asked to draw a factor bug. See example below.

This is an **example** of a complete **Factor Bug**.

1 12

2 12 6

3 4

Each leg (or tail) is a **factor** of the **bug's number (12)**.