

Monday 8.2.21  
Live maths lesson

## Year 3 Unit 7: Deriving multiplication and division facts

Multiplying larger numbers 1

Mathematics  
**Mastery**



# Maths Meeting Monday



8.2.21

- Subtract 20 from 100.
  - 80
- What is the total of 34 and 35?
  - 69
- Double 22
  - 44
- What is half of 30?
  - 15

$$80 \div 10 =$$

$$90 \div 10 =$$

$$100 \div 10 =$$

What is the secret?

Which are the even numbers.

How do you know?

73

58

64

45

On your paper write down how many hundred, tens and ones are in each number. The first one has been done for you.

**456**

4 hundreds, 5 tens 6 ones

**203**

**819**

**199**



Do Now



I will know how to multiply a two-digit number by three, four or five.

**multiply**

**part**

**whole**

**partition**

**product**

**array**



Star Words



# Introducing multiplication of two-digit numbers



There are 3 tyres on each trike.  
How many tyres would be needed for 12 trikes?

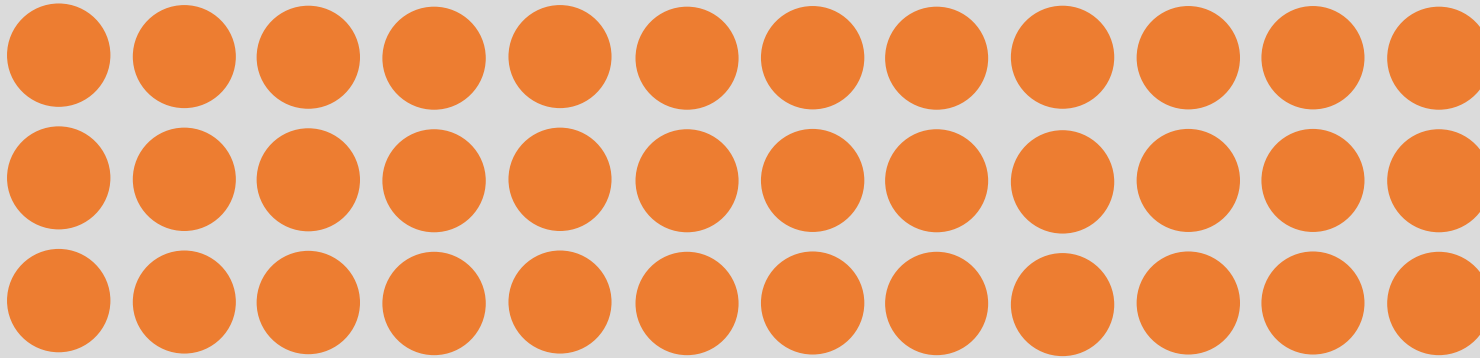
What strategies could you use to solve the problem?

*Each part is worth three and  
there are 12 parts.  
The whole is ..."*

*Why might this be difficult to solve?*

- *Counting in twelves is hard.*
- *We may know our three times tables only up to  $\times 10$ .*
- *It's a lot of 3s."*

$$3 \times 12$$



*What have I done to the array?*

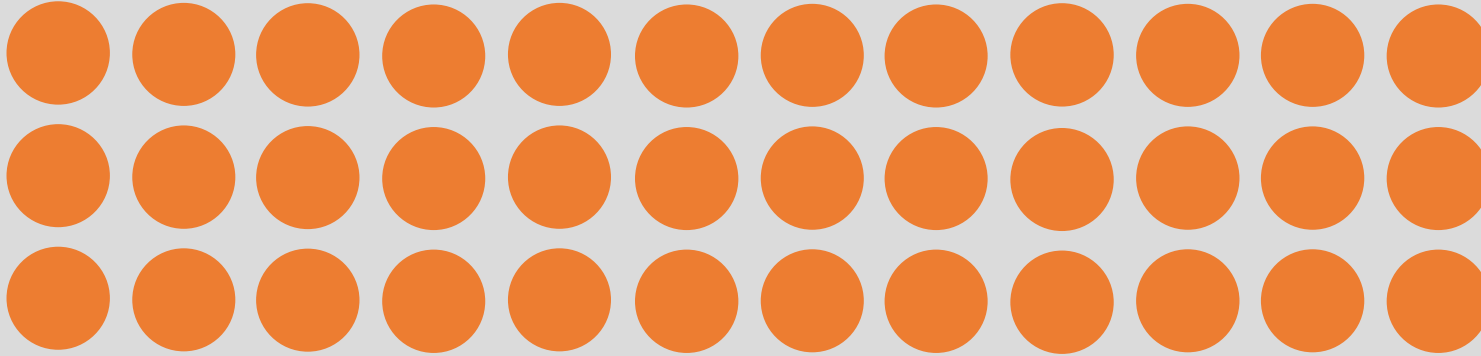
*Is the whole the same - with the same number of dots?*

*How have I changed the parts?*

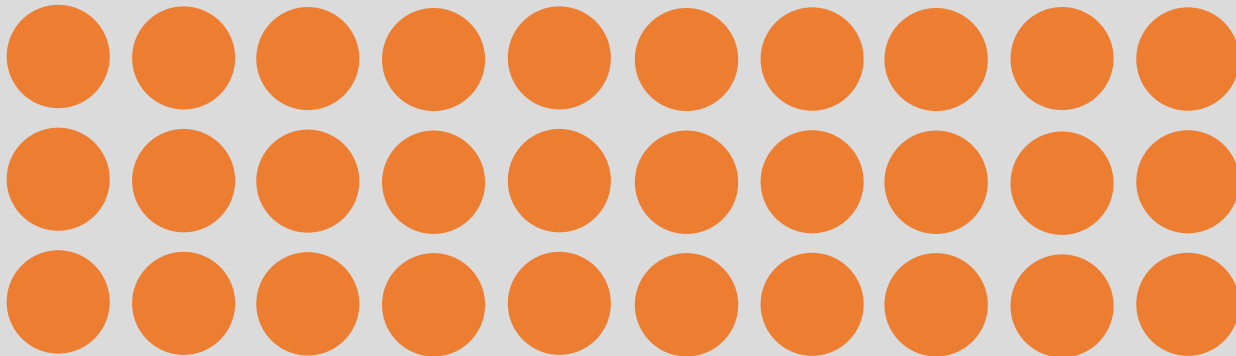
**Instead of three parts of 12, there are now three parts of 10 and three parts of 2.**

Instead of three parts of 12,  
there are now three parts of 10 and three parts of 2.

$$3 \times 12$$



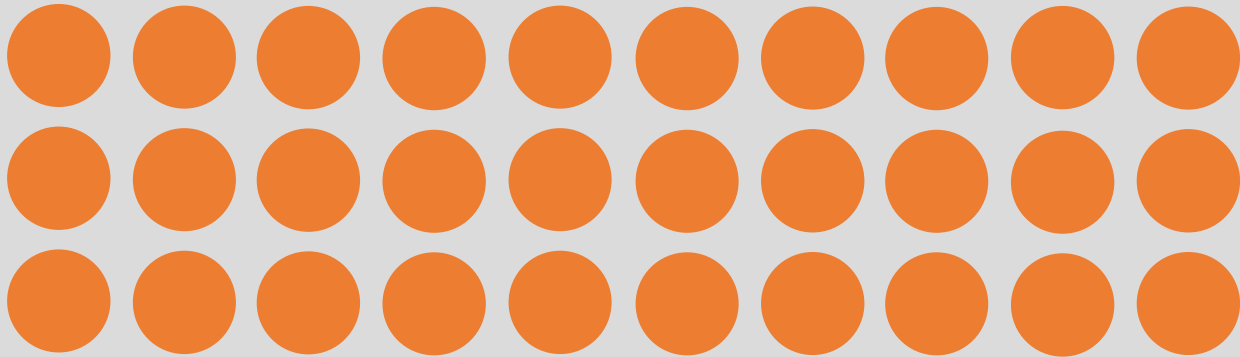
$$3 \times$$



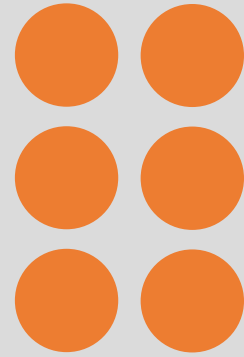
$$3 \times$$



$$3 \times 10$$

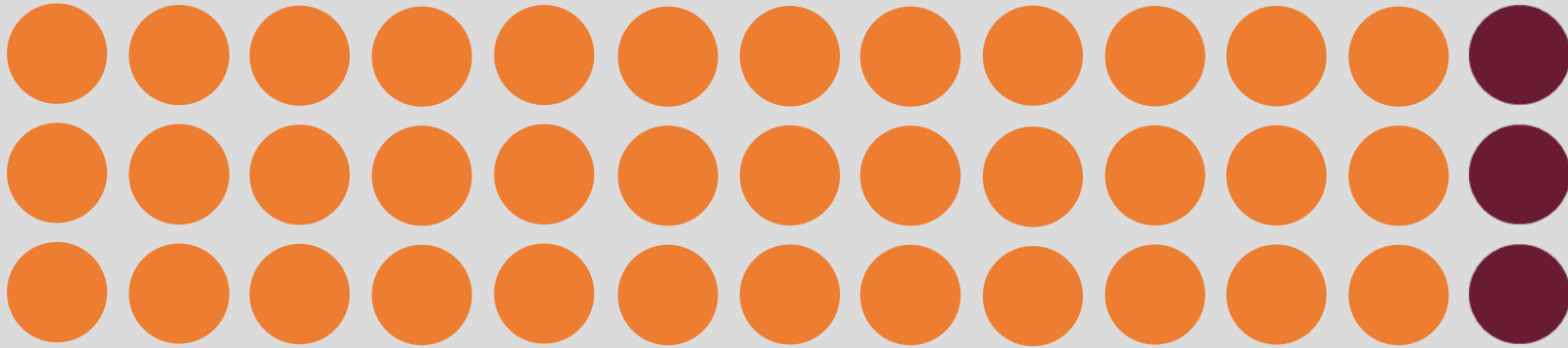


$$3 \times 2$$

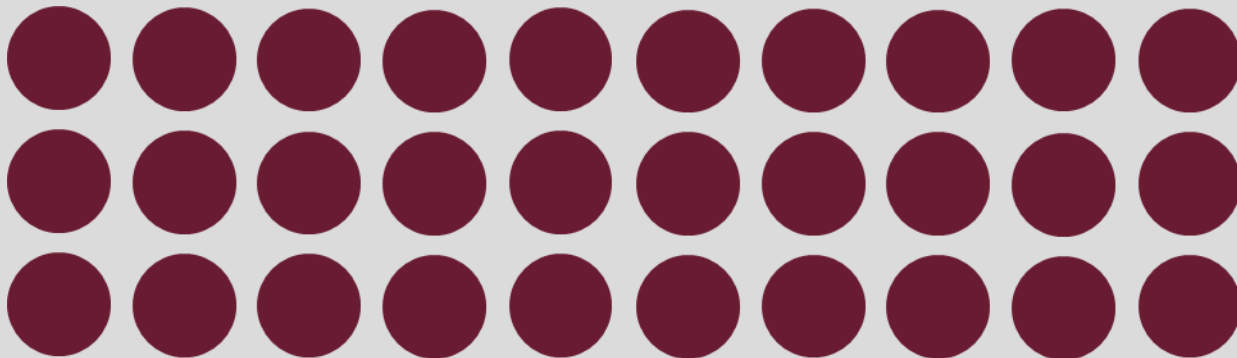


We do

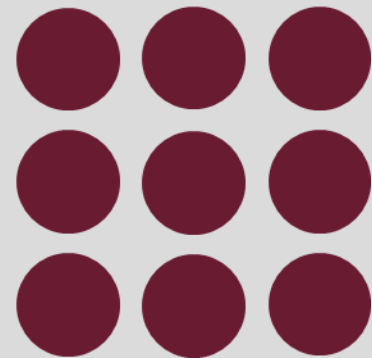
$$3 \times 13$$



$$3 \times 10$$

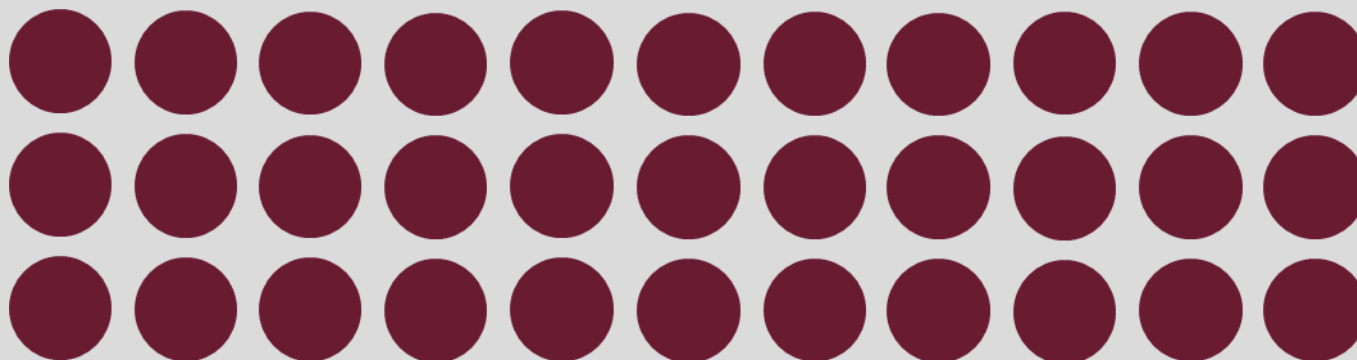


$$3 \times 3$$

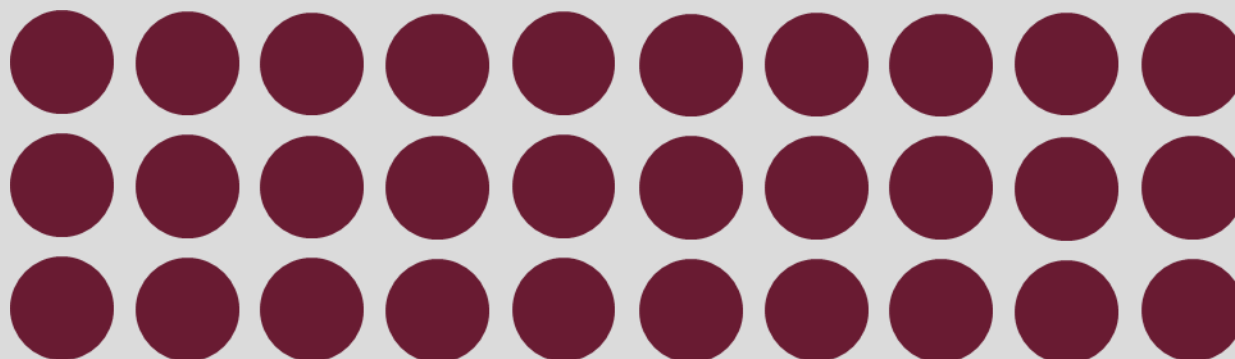


You do

$$3 \times 11$$



$$3 \times 10$$



$$3 \times 1$$



I do

## Multiplication by partitioning with Dienes

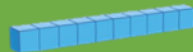

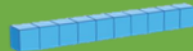

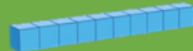

$$3 \times 13 =$$

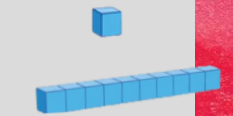
How can you represent this calculation using Dienes blocks?

So this is  $1 \times 13$

I need  $3 \times 13$

Which strategy is easiest?

Tens	Ones
	
	
	



We do







$$3 \times 12 =$$

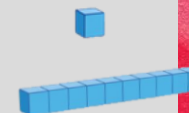
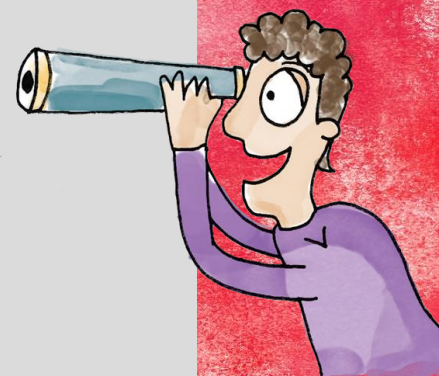
How can you represent this calculation using Dienes blocks?

So this is 1x12

I need 3 x 12

Solve it!

Tens	Ones
	
	
	



You do

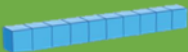



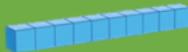

$$3 \times 11 =$$

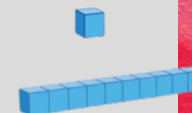
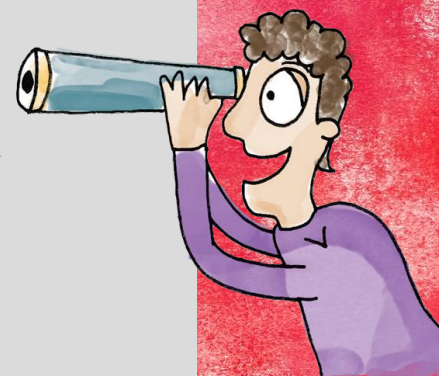
How can you represent this calculation using Dienes blocks?

So this is 1x11

I need 4 x 11

Solve it!

Tens	Ones
	
	
	



# Assignment

Go and find your assignment in the general folder.

Choose your chilli.



Click the Editing button so you can type straight onto your task sheet. If you can't write on the assignment sheet you can copy it onto paper and take a photograph of it.