L.O - To explore 2 digit by 1 digit division.

success criteria

>To use concrete and written methods to solve division problems.
>To use known multiplication facts to solve division questions.

>To partition 2 digit numbers into tens and ones.
>To problems solve and reason with division.

Key vocabulary: division, partition, tens, ones, exchanging, dividing

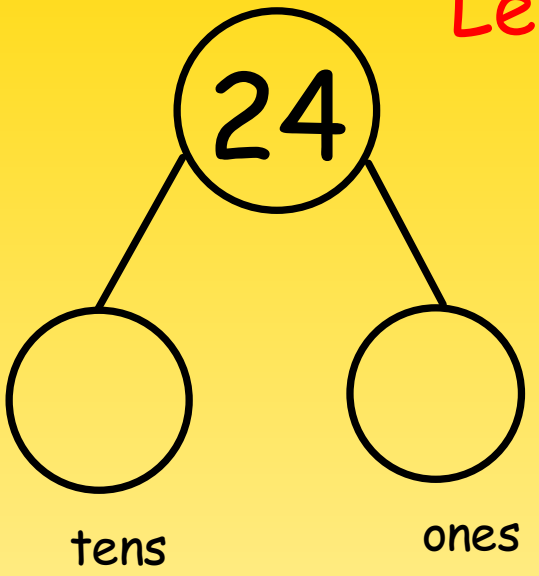
Today we are going to be exploring how to divide 2 digit number by 1 digit numbers. To do this we need to refresh our knowledge on partitioning.

What is partitioning?
How can I partition a 2 digit number?

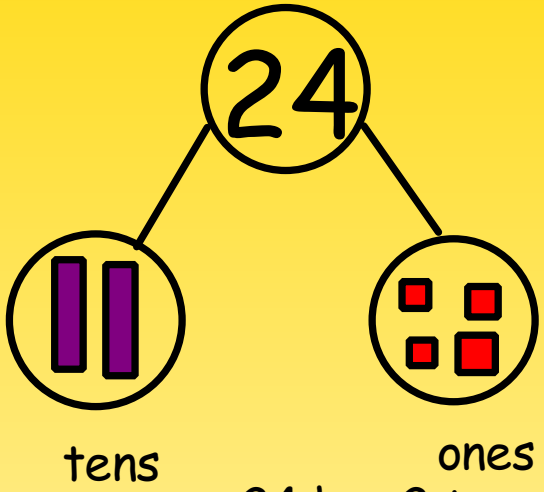
Partitioning is a way of breaking down a bigger number into smaller parts. Today we will be using our place value knowledge to partition numbers into tens and ones.

How to partition a number.

Lets take a look at the number 24



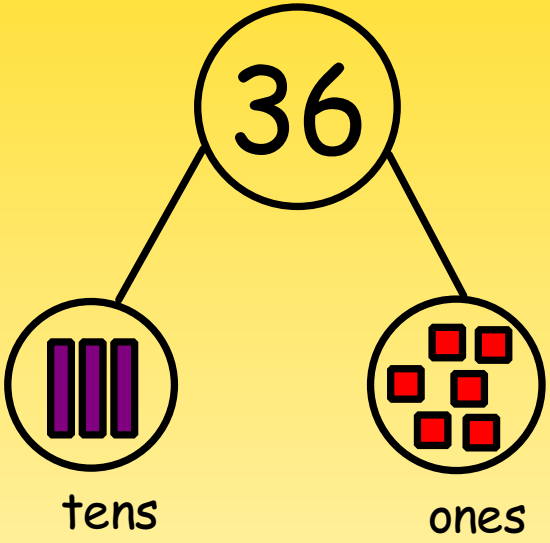
how many tens and ones does it have?



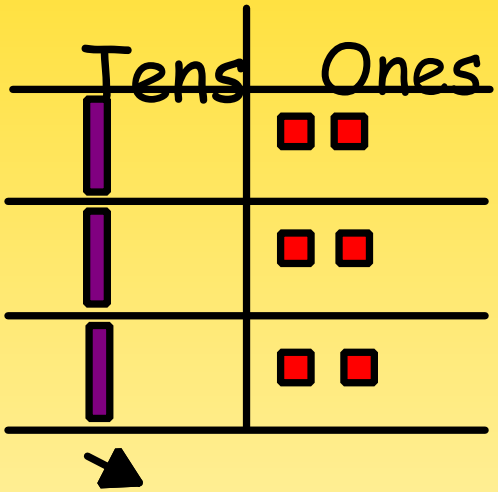
As we can see 24 has 2 tens and 4 ones. Now that we know how to partition a number lets see how this method can help us to divide.

let's try this calculation 36 ÷ 3

Step one
partition the bigger number.
This gives us 3 tens and 6 ones.

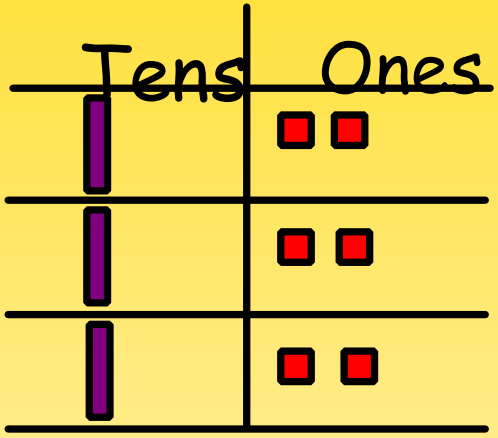


Step two
Share the partitioned tens and ones equally into 3 groups



we are using 3 groups because we are dividing by 3

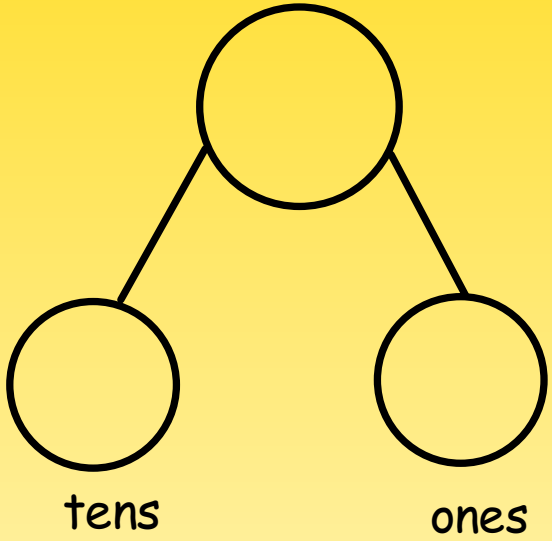
Step three
Check the total amount shared equally in each row this will give you your answer.



Each row has 1 ten and 2 ones this makes 12 in total, therefore
36 ÷ 3 = 12

Have a go at this 44 ÷ 4 =

Step one
partition the bigger number.



Step two
Share the partitioned tens and ones equally into groups

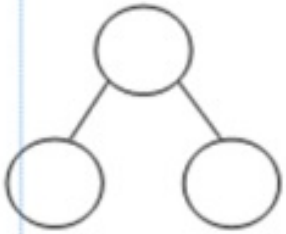
Tens	Ones

Step three
Check the total amount shared equally in each row this will give you your answer.

Tens	Ones

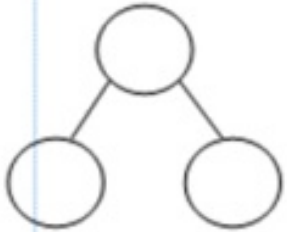
Fluency

1. 66 ÷ 6 =



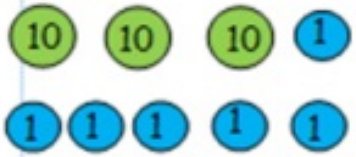
Tens	Ones

2. 88 ÷ 4 =



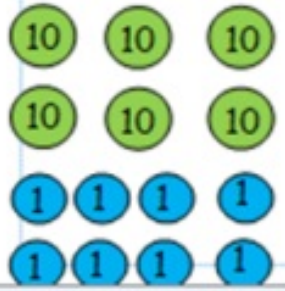
Tens	Ones

3. 36 ÷ 3 =



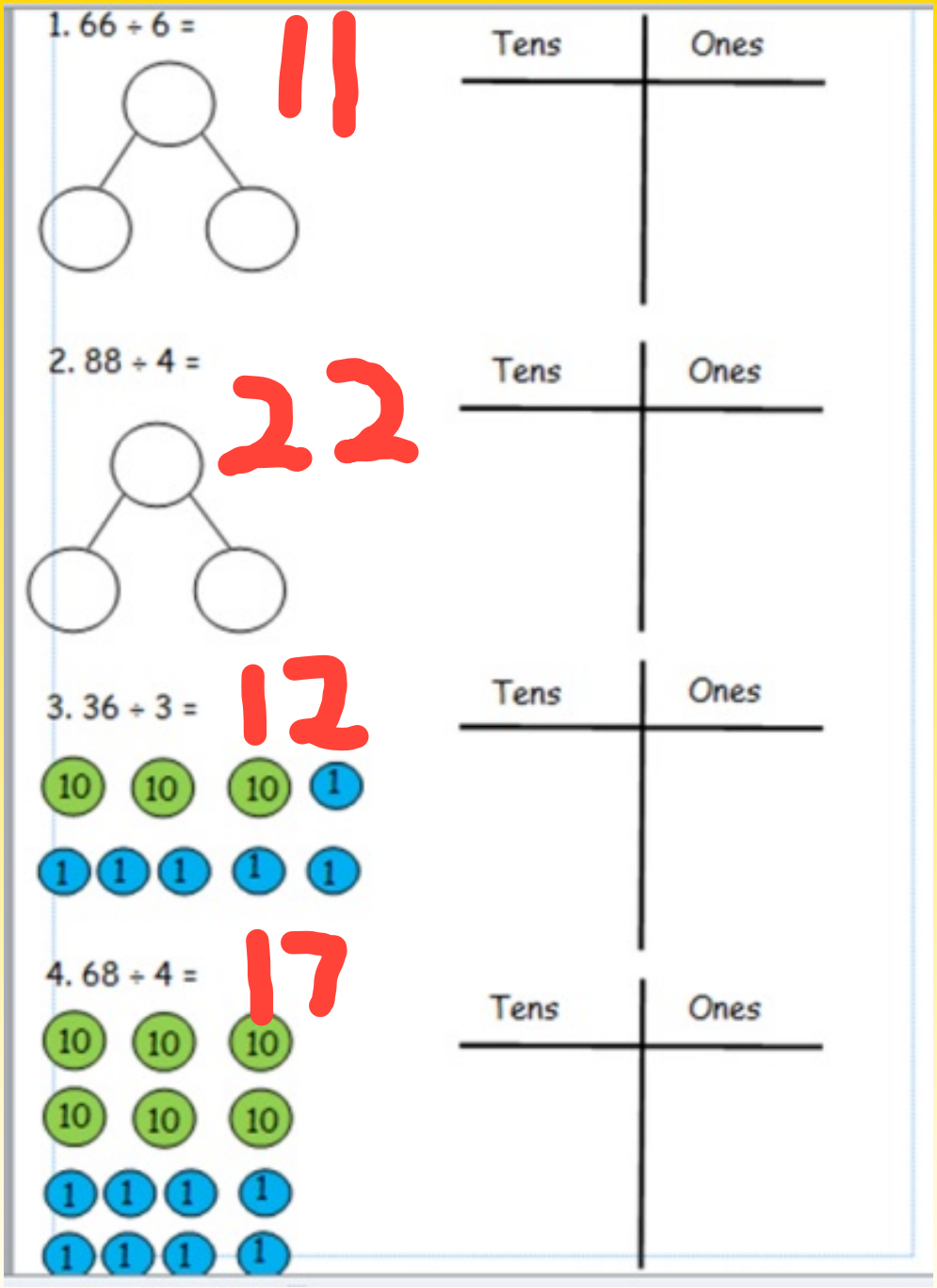
Tens	Ones

4. 68 ÷ 4 =



Tens	Ones

Fluency answers



Problem solving

Prove it!

Lexi thinks that 88 sweets can be shared equally between eight people.

Is she correct?

Jacob answers the question 44 ÷ 4 using place value counters.

T	O
10 10	1 1
10 10	1 1

Is he correct?
Explain your reasoning.

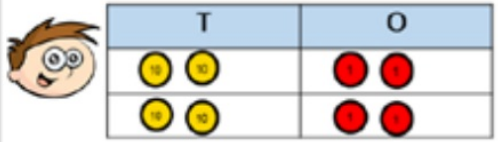
Grace uses place value counters to help her calculate 63 ÷ 3

T	O
10	10 1
10	10 1
10	10 1

She gets an answer of 12
Is she correct?
Use place value counters to explain how you know.

Answers

Jacob answers the question 44 ÷ 4 using place value counters.



Is he correct?
Explain your reasoning.

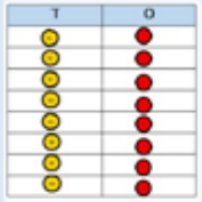
Jacob is incorrect. He has divided 44 by 2 instead of by 4

Prove it!

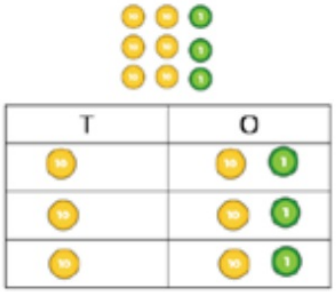
Lexi thinks that 88 sweets can be shared equally between eight people.

Is she correct?

Lexi is correct because 8 can be divided equally into 88 eleven times:



Grace uses place value counters to help her calculate 63 ÷ 3

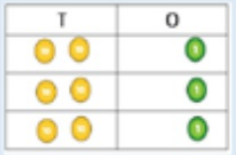


She gets an answer of 12
Is she correct?
Use place value counters to explain how you know.

Possible answer:

Grace is incorrect because she has not shared her ten counters in the tens column.

It should look like this:



The answer would be 21