

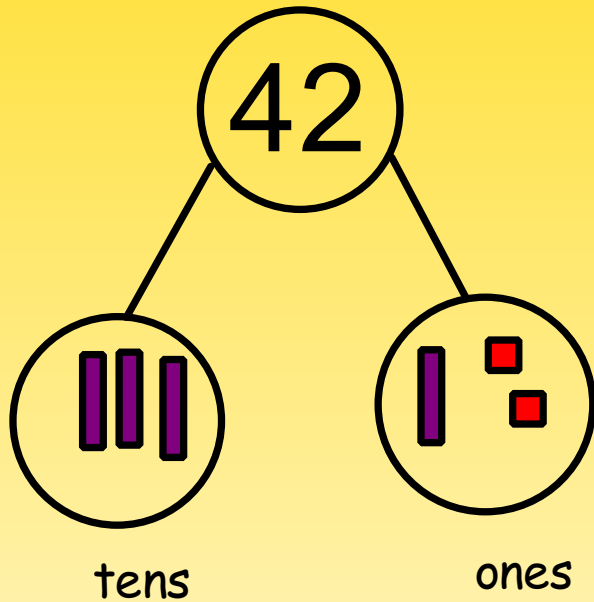
# L.O - To explore 2 digit by 1 digit division.

## 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.

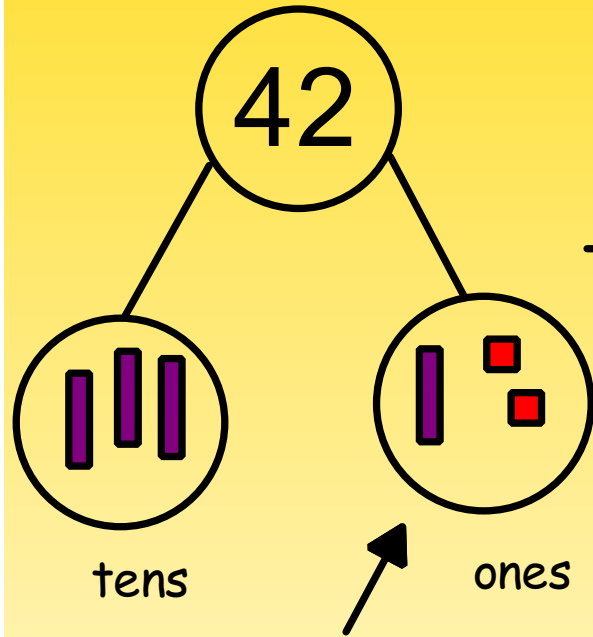
Key vocabulary: division, partition, tens, ones, exchanging, dividing

- Let's think back to all of the hard work we did on using bar models earlier this year. Here we are calculating  $42 \div 3$ , we have successfully partitioned into 30 and 12 both of which are in the 3 times tables.

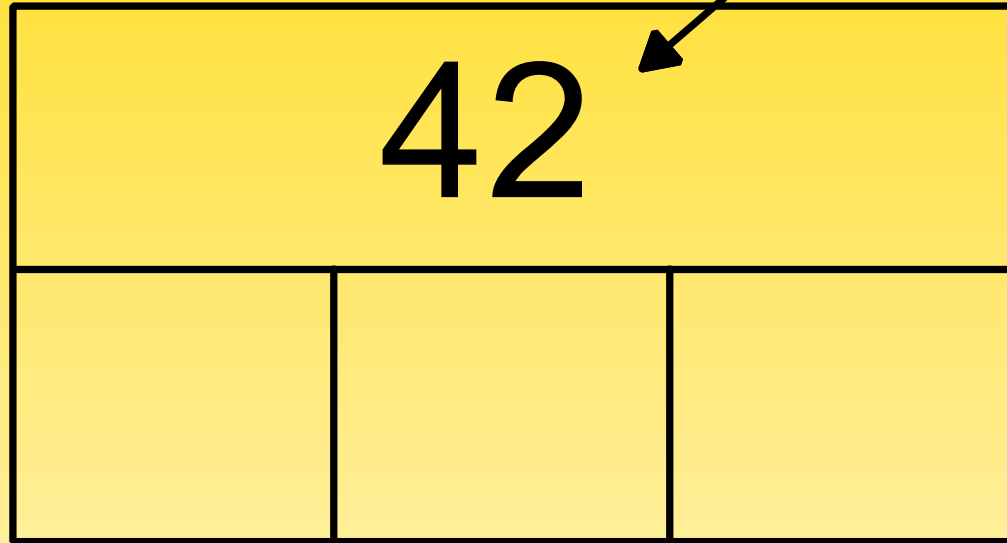


How could I use a bar model to help me find the correct answer to  $42 \div 3 = ?$

Complete this bar model.



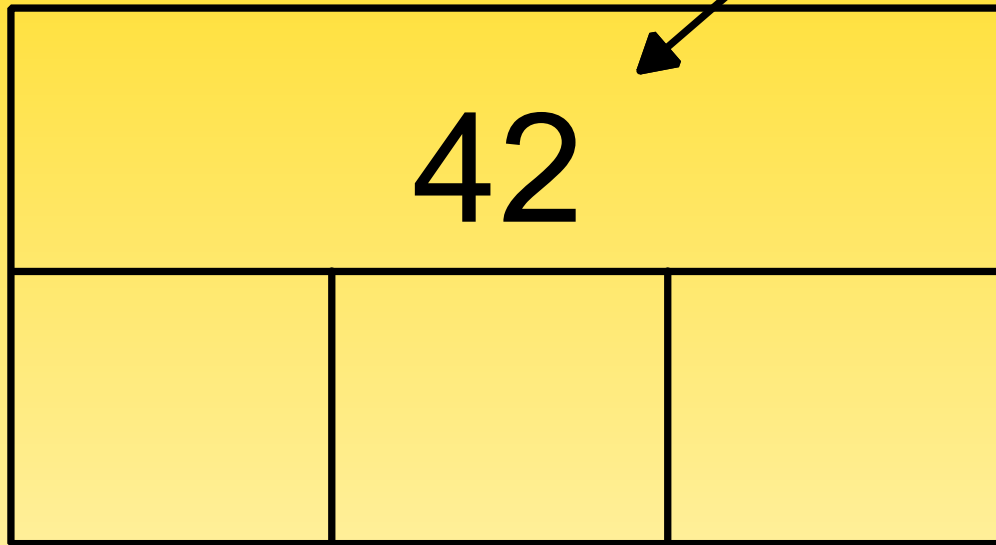
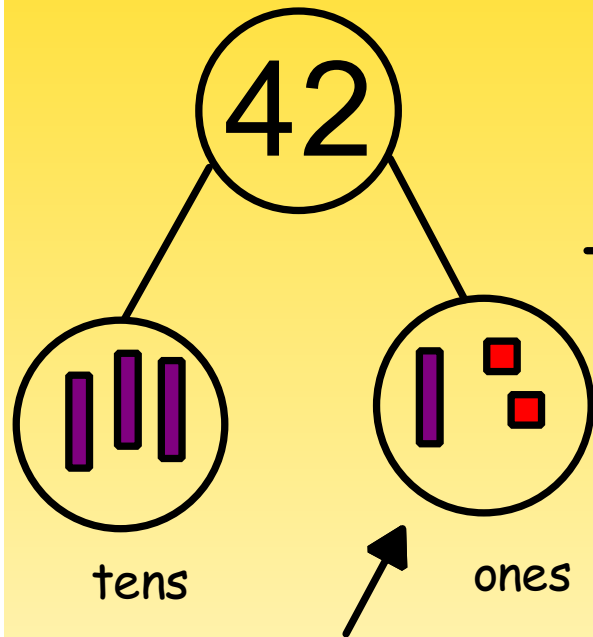
You might need to exchange your tens into ones to share equally.



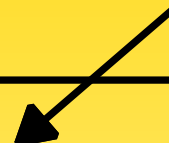
This is my whole, the number I am dividing.

I have drawn 3 parts because I am dividing by 3

Complete this bar model.



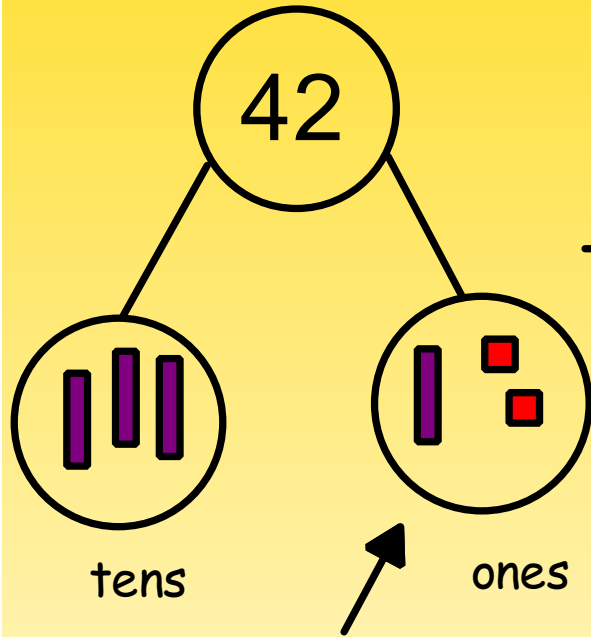
This is my whole,  
the number I am  
dividing.



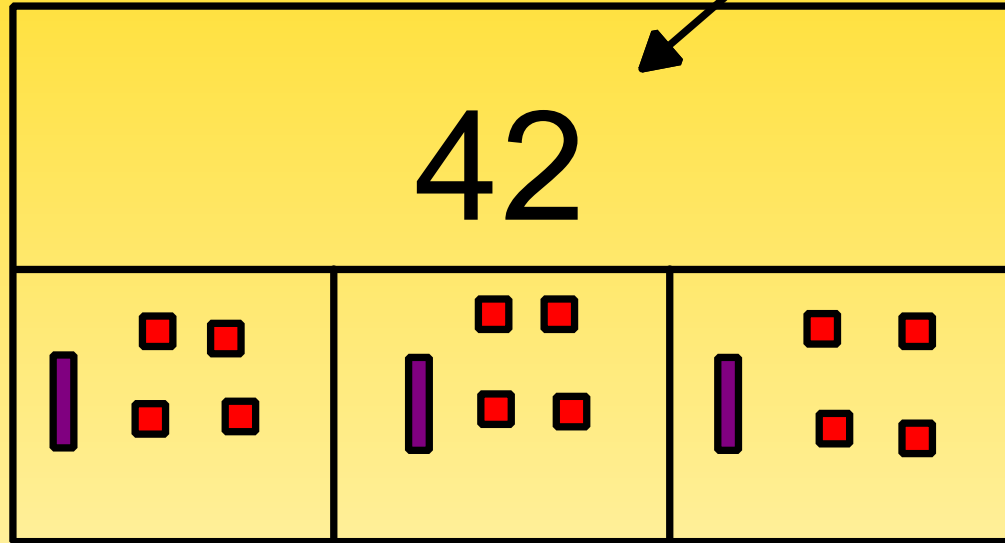
You might need to exchange your tens into ones to share equally.

I have drawn 3 parts because I am dividing by 3

Complete this bar model.



You might need to exchange your tens into ones to share equally.



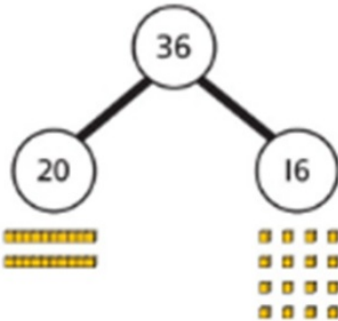
This is my whole,  
the number I am  
dividing.

I have drawn 3 parts because I am dividing by 3

$$42 \div 3 = 14$$

## Think together

- 1 There are 36 people waiting to get on 2 buses.  
The same number of people get on each bus.  
How many people get on each bus?



$$2 \text{ tens} \div 2 = \square \text{ ten}$$

$$20 \div 2 = \square$$

$$\square + \square = \square$$

$$16 \text{ ones} \div 2 = \square \text{ ones}$$

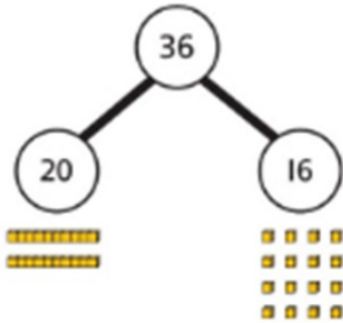
$$16 \div 2 = \square$$

$$\text{So, } 36 \div 2 = \square$$

Complete this question

## Think together

- 1 There are 36 people waiting to get on 2 buses.  
The same number of people get on each bus.  
How many people get on each bus?



$$2 \text{ tens} \div 2 = \boxed{1} \text{ ten}$$

$$20 \div 2 = \boxed{10}$$

$$\boxed{10} + \boxed{8} = \boxed{18}$$

$$16 \text{ ones} \div 2 = \boxed{8} \text{ ones}$$

$$16 \div 2 = \boxed{8}$$

$$\text{So, } 36 \div 2 = \boxed{18}$$

## Fluency

$$1.51 \div 3 =$$

$$2.64 \div 4 =$$

$$3.96 \div 8 =$$

$$4.72 \div 6 =$$

$$5.96 \div 3 =$$



## Fluency

$$1.51 \div 3 = 17$$

$$2.64 \div 4 = 16$$

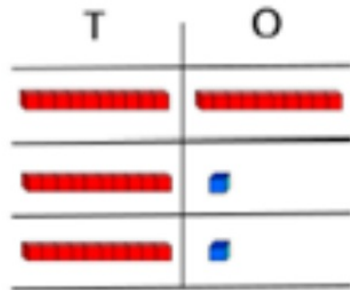
$$3.96 \div 8 = 12$$

$$4.72 \div 6 = 12$$

$$5.96 \div 3 = 32$$

# Reasoning

Jane is calculating  $42 + 3$

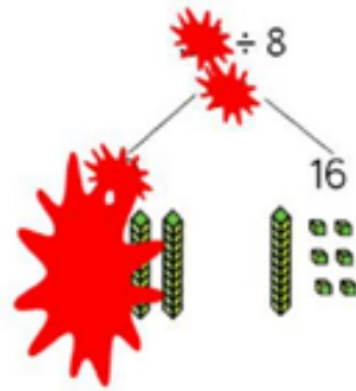


Can you spot and explain her mistake?

# Problem solving

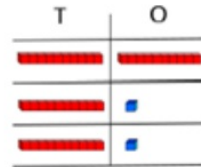
Shadya partitioned a number to help her divide by 8

What number could Shadya have started with?



# Answers

Jane is calculating  $42 \div 3$

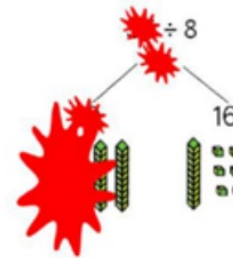


Can you spot and explain her mistake?

Jane should have partitioned 42 into 30 and 12 because both 30 and 12 are divisible by 3. She has incorrectly placed one ten into the ones column. She could exchange this ten for ten ones and then share the 12 ones equally between 3

Shadya partitioned a number to help her divide by 8

What number could Shadya have started with?



I know the answer would need to be in the 8 times tables.

I can see that one of the numbers used was 16, so my answer would need to end in a 6 and be in the 8 times table.

My answer could either be 56 or 96