

A Guide to Division



This is a supporting document for episode 3 in our mini-series 'Maths with Michael' which has been produced in collaboration with TV presenter, teacher and parent Michael Underwood.

$\sqrt{3}$

Aa

$\frac{10}{10}$

5x

$1+1=2$

Maths Equipment

In this guide we use a place value chart, place value counters and a mini whiteboard.

If you don't have these you could:

- draw a place value chart on poster paper or the back of a cereal box
- make your own place value counters using card
- use other objects such as dried pasta or small toys.

Place value chart

Hundreds	Tens	Ones

10 x hundred counters



20 x ten counters

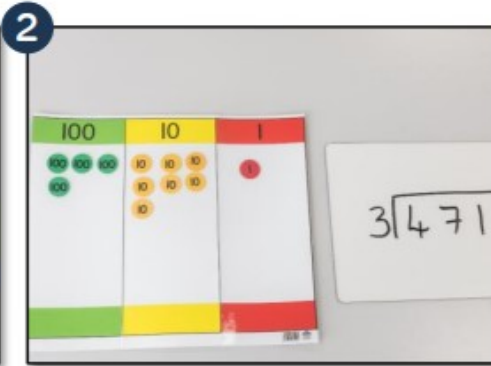


20 x one counters





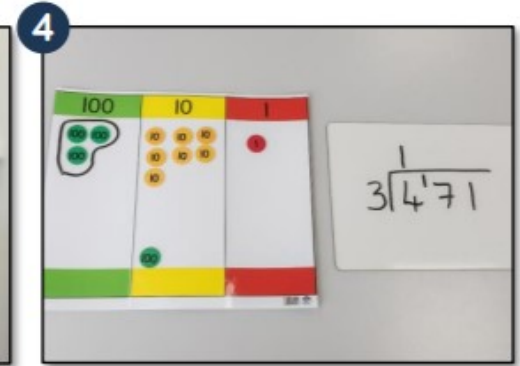
We are going to divide 471 by 3 using place value counters and a place value grid to help us.



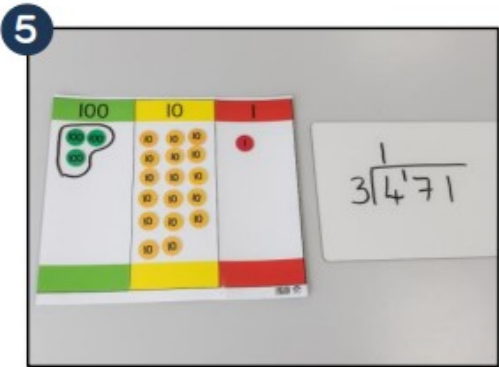
First build the number 471 on a place value grid and record the calculation as a short division on a whiteboard or piece of paper.



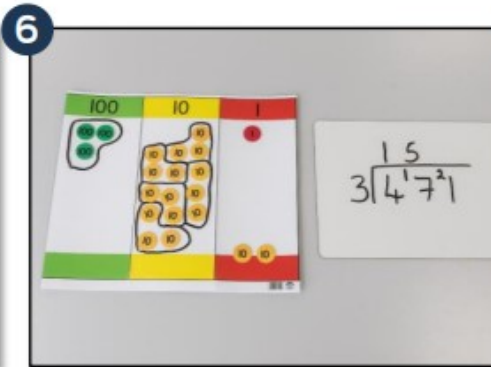
Ask "How many groups of 3 hundreds are there in 4 hundred?" They should be able to tell you that there is 1 group of 3 hundreds and there is 1 hundred left over.



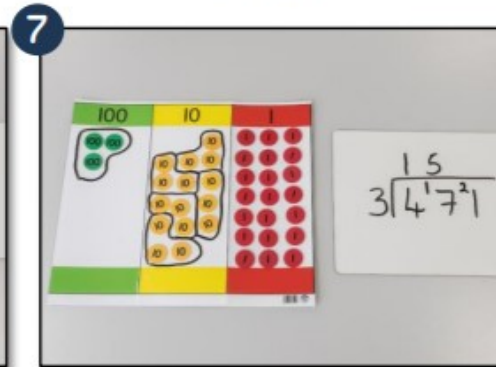
Show this in the place value grid and in the calculation. There aren't any more groups of 3 hundreds so the remaining hundred counter is placed in the tens column.



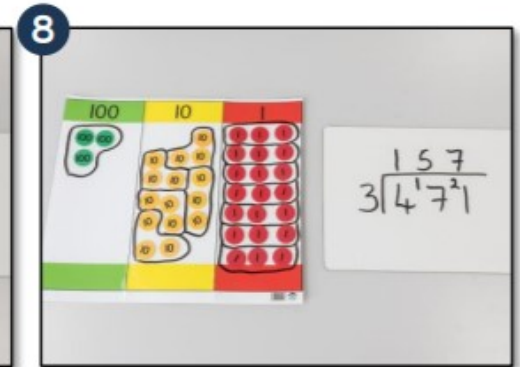
Ask "How many tens can we exchange 1 hundred for?" 1 hundred is equal to 10 tens so replace the hundred counter with 10 tens.



Ask "How many groups of 3 tens are there in 17 tens?" There are 5 groups of 3 tens and 2 tens left over. These tens are placed in the ones column.



Ask "How many ones can we exchange each ten for?" 1 ten is equal to 10 ones so we can exchange 2 tens for 20 ones.



Ask "How many groups of 3 ones are there in 21 ones?" There are 7 groups of 3 ones and no ones left over. 471 divided by 3 is equal to 157

Now Try These

$$456 \div 3$$

$$856 \div 4$$

$$665 \div 5$$

$$801 \div 3$$

Draw or use a place value grid and counters to help you. Remember to write down all the steps in your calculation too.

Printouts – Place Value Chart

Hundreds	Tens	Ones