22.04.20

I can divide 2 and 3 digit numbers using short division.

Starter –Play Hit the button using times tables and then division.

https://www.topmarks.co.uk/maths-games/hit-the-button

Short Division Method

Watch this video to remind us about how to do the short division method.

https://www.youtube.com/watch?v=trjepeOy2rc

You may want to have a go as he explains how to do it.

Time to practice

1. Using short division method, solve these questions:

325 ÷ 5 =

284 ÷ 2 =

98 ÷ 2 =

69 ÷ 3 =

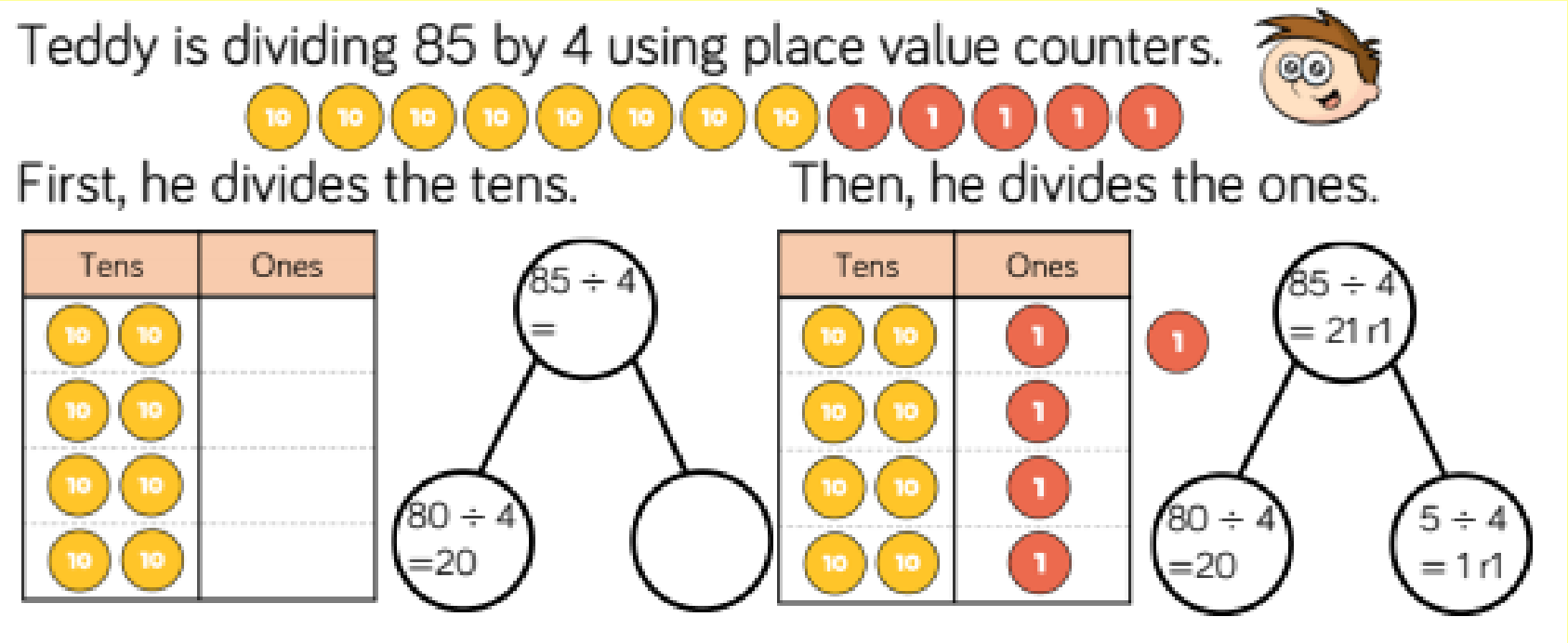
Division with Remainders

A remainder is what is left over. Sometimes a division question with have a left over amount. For example you might have 10 chocolates to share between 4 people. However they can not be shared equally. This means there would be some chocolate left over.

Like yesterdays learning there are a few ways which we can solve these types of questions.

Lets have a look.

Partitioning with remainders.



85 ÷ 4 = 21 r 1

As you can see Teddy partitioned his tens and ones first.

The place value counters are showing us that.

He then divided each question like we did yesterday. However when he did 5 ÷ 4 he had one left over.

This becomes the remainder

Now it’s your turn:

2. Use the partitioning method to divide these numbers.

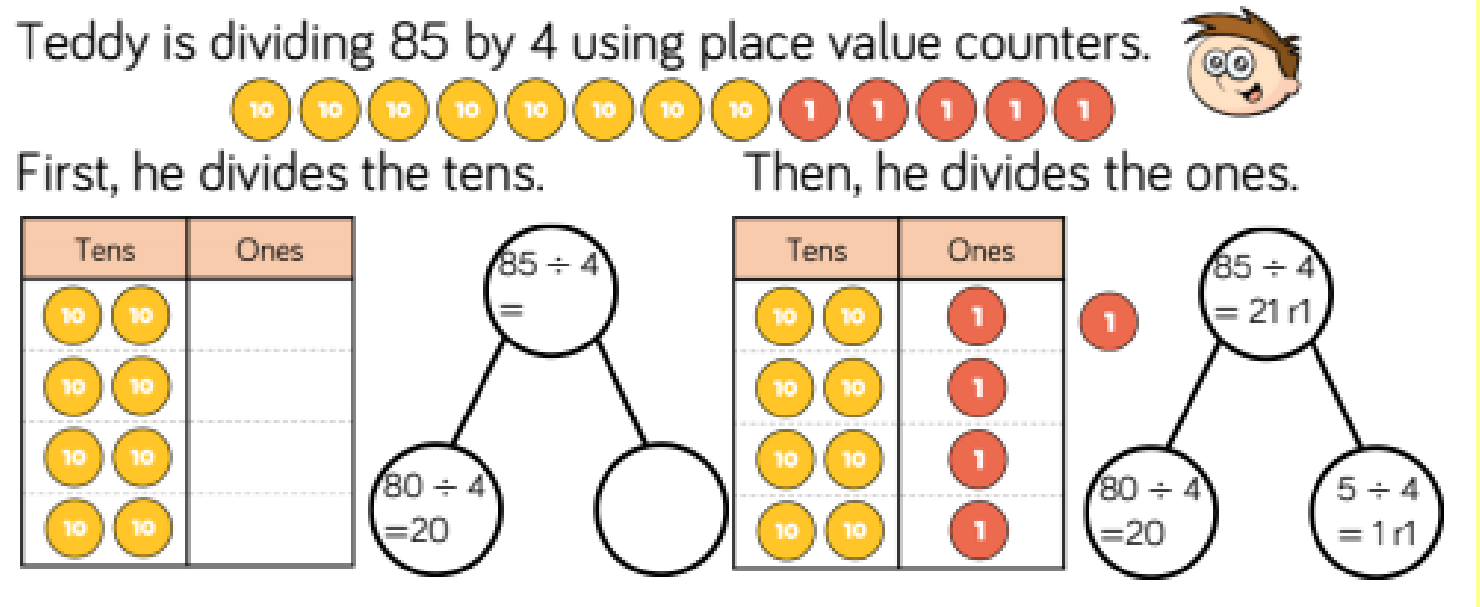
86 ÷ 4 =

87 ÷ 4 =

97 ÷ 3 =

98 ÷ 3 =

489 ÷ 2 =



Short Division with Remainders

Sometimes we will get questions where the number we are dividing cannot be shared equally. This means that we will have some left over.

For example, 85 ÷ 4 =

$$\begin{array}{r} 2\ 1\text{ r }1 \\ 4\overline{)8\ 5} \end{array}$$

I have to start the same way. So I begin with how many times can 4 go into 8 equally and the answer is 2.

I then think about how many times 4 can go equally into 5 and it can only in once

4 x 1 = 4 so this is when I need to count on and see how much I would have left over.

My answer would be 1 left over. This is called a remainder.

Short Division with Remainders

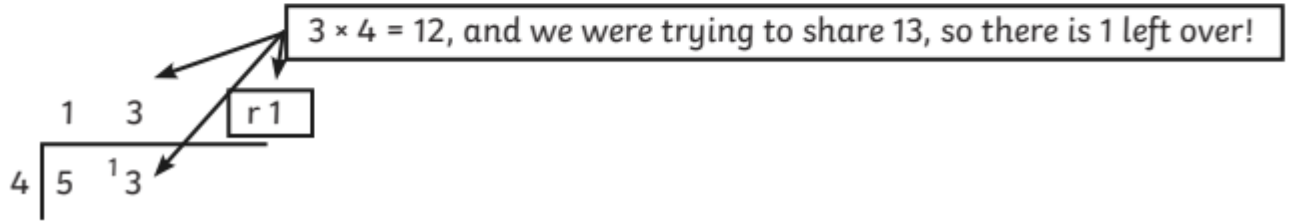
Watch this video to understand more about remainders.

https://www.youtube.com/watch?v=FApcjdAhnrY

Remainders

53 ÷ 4 = **13 r1**

1. Share 5 tens into 4 groups. There is 1 ten in each group with 1 ten left over. We write the 1 above the line and regroup the left over ten onto the next column to make 13.
2. Share 13 into 4 groups? We can make 4 groups of 3, so we write 3 above the bus stop.
3. There is 1 left over. This is a remainder. So we write r1 on the line.



3. Using the short division method, solve these questions.

73 ÷ 5 =

57 ÷ 4 =

77 ÷ 6 =

379 ÷ 3 =

483 ÷ 4 =

704 ÷ 6 =

Challenge:

1. **37 sweets are shared between 4 friends. How many sweets are left over? Four children attempt to solve this problem.**

- **Alex says it's 1**
- **Mo says it's 9**
- **Eva says it's 9 r 1**
- **Jack says it's 8 r 5**

Can you explain who is correct and the mistakes other people have made?

2. Rosie writes,

85 ÷ 3 = 28 r 1

She says 85 must be 1 away from a multiple of 3

Do you agree?