Slindon C.E. Primary School

Progression in Mathematical Calculations -Division

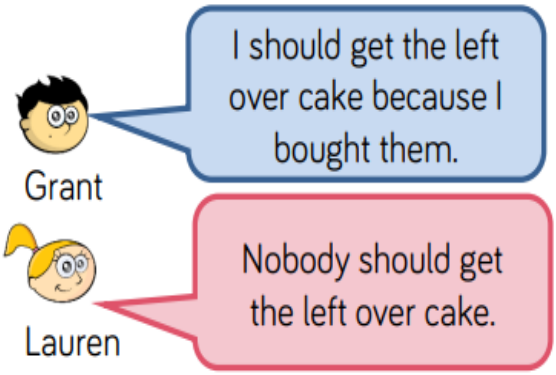
Guidance for Parents

In **year 1** the expectation is that children will:
Solve one step problems involving division by calculating the answer using concrete objects and pictorial representations with the support of a teacher.

For example:

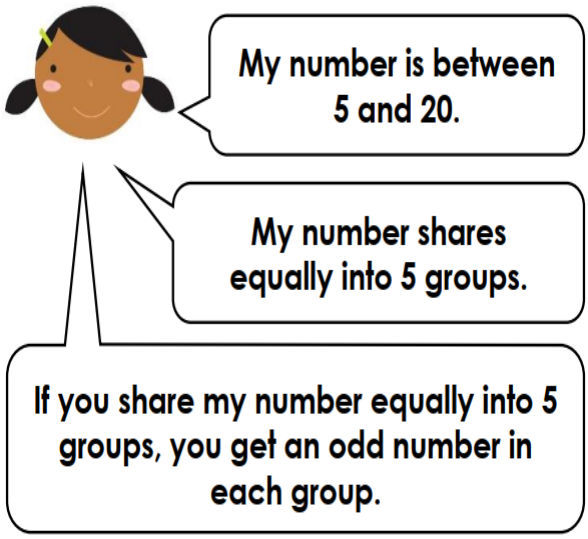
Share the muffins equally between the two plates.
Complete the sentence
___ cakes shared equally between 2 is ___

Grant and Lauren are sharing 5 cakes.



Who is being fair?
Explain why.

4b. What number is Alli thinking of?



Slindon C.E. Primary School

Progression in Mathematical Calculations - Division

Guidance for Parents

In **year 2** the expectation is that children will:
Solve problems involving division, using materials, mental methods and division facts including problems in contexts.

The children will need to recall division facts for the 2, 5 and 10 multiplication tables.

For example:

40 pencils are shared between 5 children.

□ ÷ □ = □

How many pencils does each child get?

Tubes of bubbles come in packs of 2 and 5.

Lily has 22 tubes of bubbles.

How many of each pack could she have?

How many ways can you do it?

Useful vocabulary:
halve
share, share equally
one each, two each, three each…
group in pairs, threes… tens
equal groups of
÷, divide, divided by, divided into
left, left over

At the end of Key Stage 1 (year 2) the children will be expected to answer questions such as these in their SATs tests:

Use two of these numbers each time to make an answer of **24**.

240 2 10 5 48 120

□ ÷ □ = 24

□ ÷ □ = 24

230 children need to travel by bus.

Each bus holds **50** children.

How many buses are needed.

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Progression in Mathematical Calculations - Division

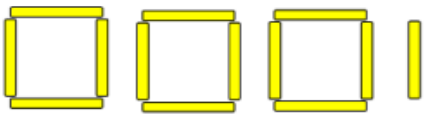
Guidance for Parents

In **year 3** the expectation is that children will:
Write and calculate mathematical statements for division for two-digit numbers divided by one-digit numbers using mental methods and formal written methods.

The children will need to recall division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables.

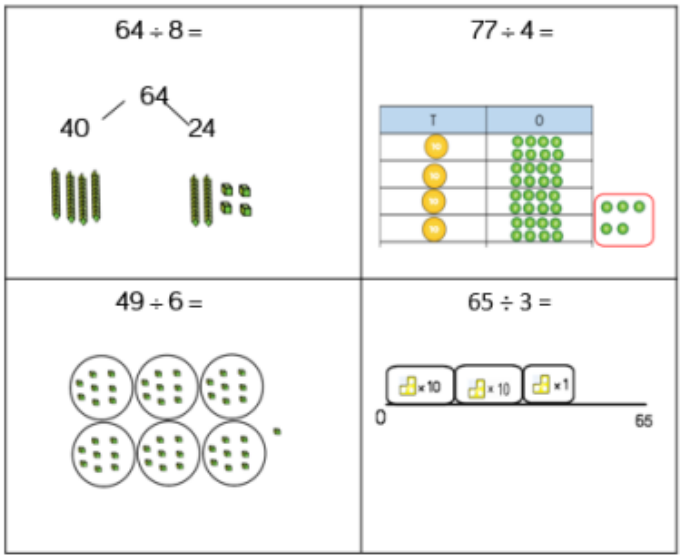
For example:

Use lollipop sticks to show how many squares you can make to answer 13 ÷ 4



There are ___ lollipop sticks
There are ___ groups of 4
There is ___ lollipop remaining.
13 ÷ 4= ___ remainder ___
Use this method to see how many triangles you can make to answer 38 ÷ 3

Which calculation is the odd one out?
Explain how you know.



I know this because _____

Useful vocabulary:
halve share, share equally one each, two each, three each… group in pairs, threes… tens equal groups of ÷, divide, division, divided by, divided into left, left over, remainder

Slindon C.E. Primary School

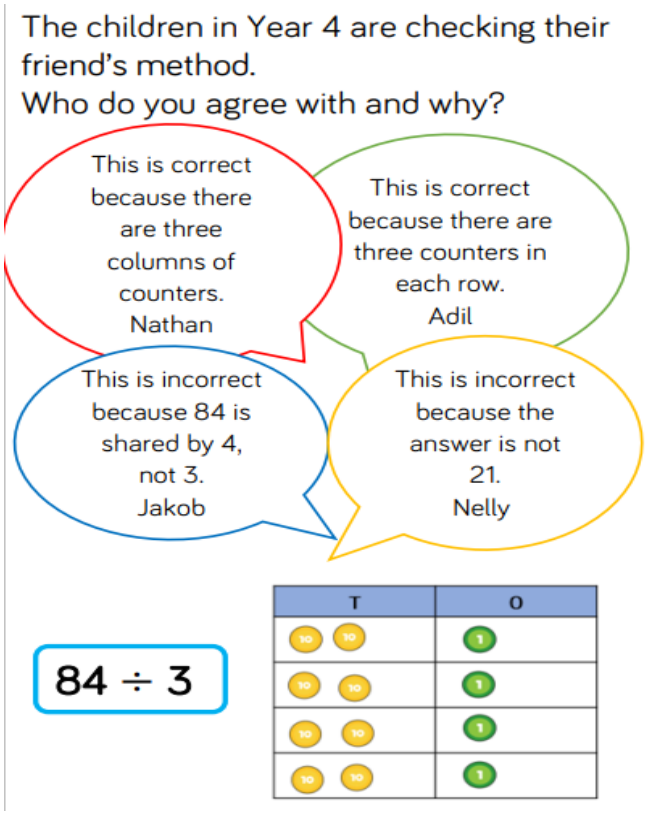
Progression in Mathematical Calculations - Division

Guidance for Parents

In **year 4** the expectation is that children will:
Divide a 2-digit or 3-digit number by a 1-digit number.

The children will need to recall division facts for the multiplication tables up to 12 x 12.

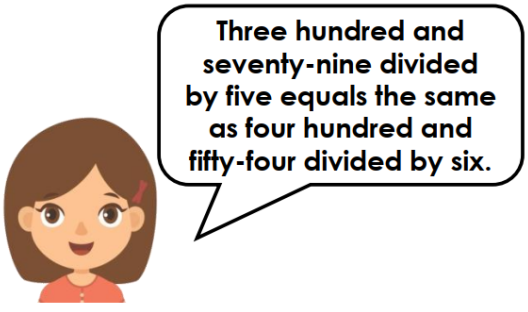
For example:



Useful vocabulary:
halve
share, share equally
one each, two each, three each…
group in pairs, threes… tens
equal groups of
divide, division, divided by, divided into
remainder
factor, quotient, divisible by, inverse

You have 12 counters and the place value grid.

H	T	O



- Create a 3 digit number divisible by 2
- Create a 3 digit number divisible by 3
- Create a 3 digit number divisible by 4
- Create a 3 digit number divisible by 5
- Create a 3 digit number divisible by 6
- Can you find a 3 digit number divisible by 7, 8 or 9?

Is she correct? Convince me.

Slindon C.E. Primary School

Progression in Mathematical Calculations - Division

Guidance for Parents

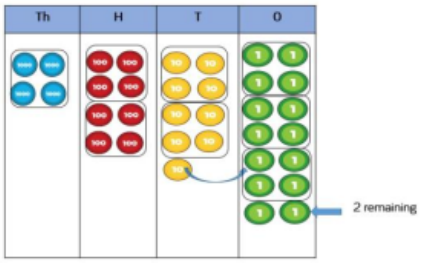
In **year 5** the expectation is that children will:
Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret the remainders appropriately for the context.

The children will need to recall division facts for the multiplication tables up to 12 x 12.

For example:

Useful vocabulary:
halve
share, share equally
one each, two each, three each…
group in pairs, threes… tens
equal groups of
divide, division, divided by, divided into
remainder
factor, quotient, divisible by
inverse

Here is a method to solve 4,894 divided by 4 using place value counters and short division.



$$\begin{array}{r} 1223\ r2 \\ 4\overline{)4894} \end{array}$$

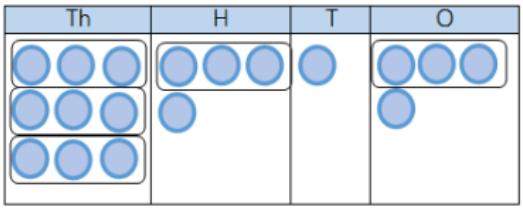
Use this method to solve the following questions.
6,613 ÷ 5 2,471 ÷ 3 9,363 ÷ 4

Muffins are packed in trays of 6 in a factory.
In one day a factory makes 5,623 muffins.

- How many trays do they need per day?
- How many full trays do they have at the end of the day?

Spot the mistake.

Explain and correct the working.



$$\begin{array}{r} 3101 \\ 3\overline{)9414} \end{array}$$

For the calculation, 8,035 ÷ 4, can you:

- Write a number story where you have to round the remainder up and one where you round down.
- Write a number story where you have to find the remainder.

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Progression in Mathematical Calculations - Division

Guidance for Parents

In **year 6** the expectation is that children will:
Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of long and short division and interpret remainders as whole numbers, fractions or by rounding, as appropriate for the context.

The children will need to recall division facts for the multiplication tables up to 12 x 12.

For example:

Elijah uses this method to calculate 372 divided by 15.
He has used his knowledge of multiples to help.

```
          2  4  r  1  2
      ┌──────────────
15    │  3  7  2
    − │  3  0  0        (× 20)
      ──────────
          7  2
    −     6  0          (× 4)
      ──────────
          1  2
```

$1 \times 15 = 15$
$2 \times 15 = 30$
$3 \times 15 = 45$
$4 \times 15 = 60$
$5 \times 15 = 75$
$10 \times 15 = 150$

Useful vocabulary:
halve
share, share equally
one each, two each, three each…
group in pairs, threes… tens
equal groups of
divide, division, divided by, divided into
remainder
factor, quotient, divisible by
inverse

Solve the following calculations using Elijah's method.
Show the multiples that you need to use to help you.

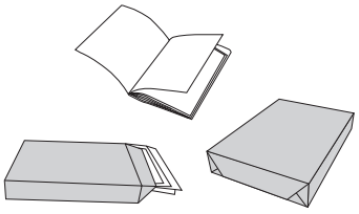
$271 \div 17 =$ $623 \div 21 =$ $842 \div 32 =$

At the end of Key Stage 2 (year 6) the children will be expected to answer questions such as these in their SATs tests:

Show your method

$3\overline{)7888}$

Adam is making booklets.



Each booklet must have **34** sheets of paper.

He has **2** packets of paper.

There are **500** sheets of paper in each packet.

How many complete booklets can Adam make from **2** packets of paper?