**Division**

The expectation for year five and six is children will continue to use formal written methods of calculation. They use long division in the ‘bus stop’ method before finally solving division problems using the formal method of short division.

|  |  |
| --- | --- |
| **National Curriculum Expectations** | **Calculation Method** |
| **Stage 5**  Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context  Divide whole numbers and those involving decimals by 10, 100 and 1000 | Formal written methods of division are used;  196 ÷ 6 =  032 r 4  6 196 6 does not go into 19  18 but it does go into 18 3 times  16  12  04 |
| **Stage 6**  Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context | There is 1 ten left over which is joined with the 6 from the units column.  Six can be divided into 12 twice leaving a remainder of 4    28.8 ÷3  15 43132. 120 or 12 4 = 0.8  15 5  ÷3 |

**Chunking**

This is the previous stage of division for children that are struggling with the formal written methods. Children use their knowledge of multiplication to subtract chunks from the total amount. For example;

158 ÷ 4 = 39 r 2

* We know 10 x 4 = 40 so we subtract 40 from the total.

158 – 40 = 118

* Forty can be subtracted again

118 – 40 = 78

* Forty can be subtracted again

78 – 40 = 38

* Children now use their 4 times tables to find the next number to subtract.

9 x 4 = 36 so this can now be subtracted.

38 – 36 = 2

Two cannot be shared between 4 so it is the remainder.

* The final stage is to add up the groups that have been subtracted.

10 lots of 4 were subtracted

10 lots of 4 were subtracted

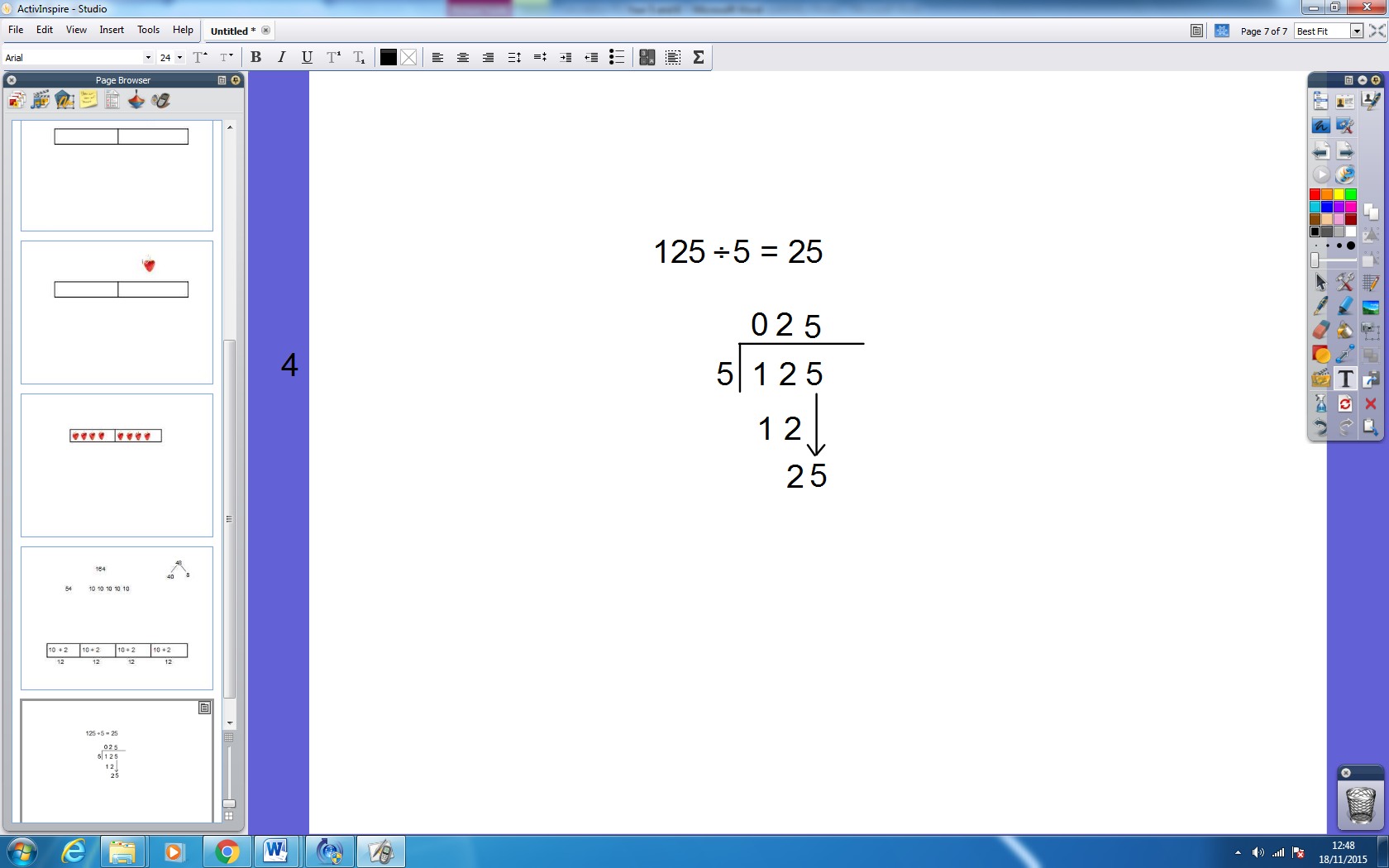
10 lots of 4 were subtracted

9 lots of 4 were subtracted

10 + 10 + 10 + 9 = 19 add the remainder 39 r 2

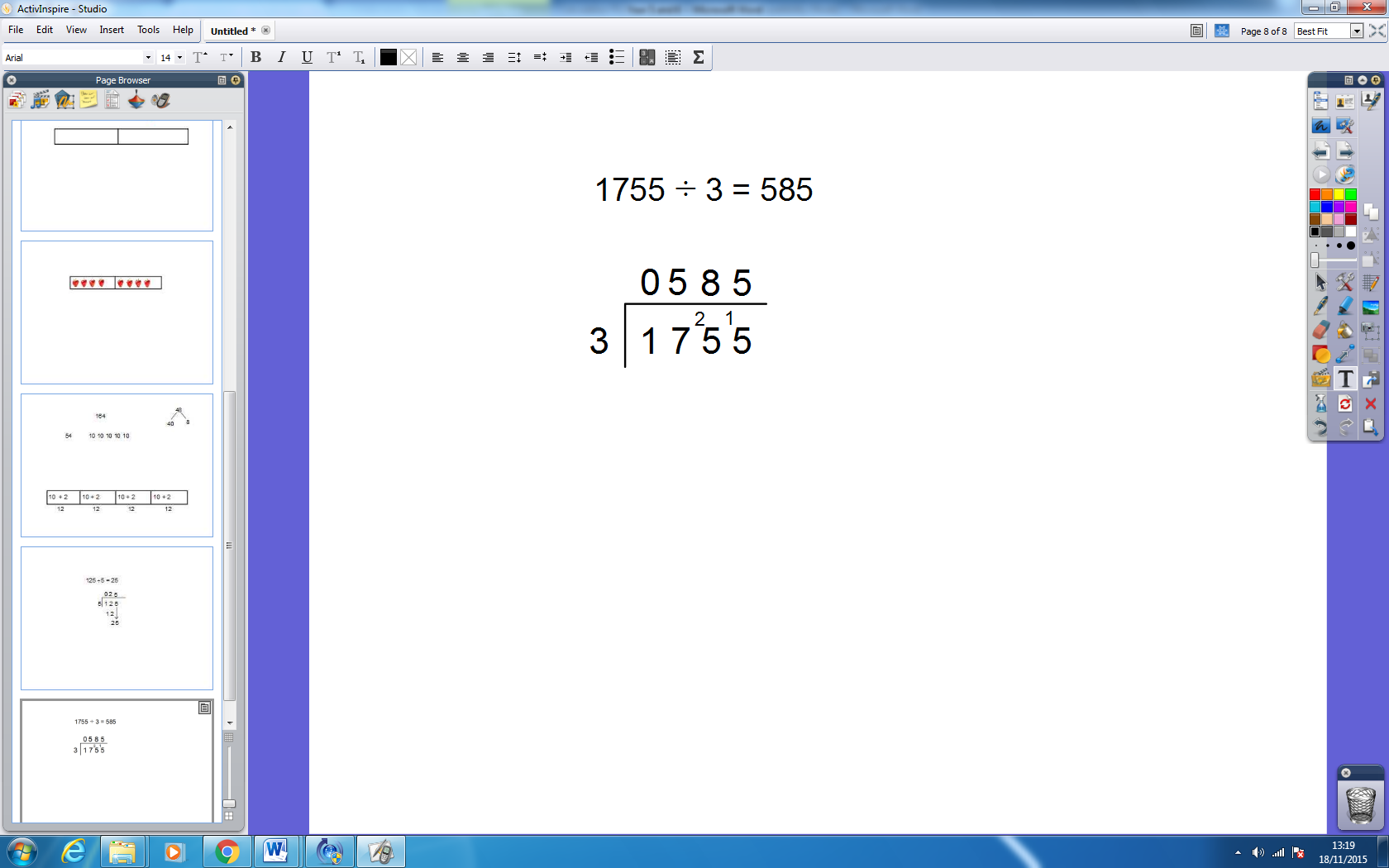
158 ÷ 4 = 39 r 2

**Long Division**

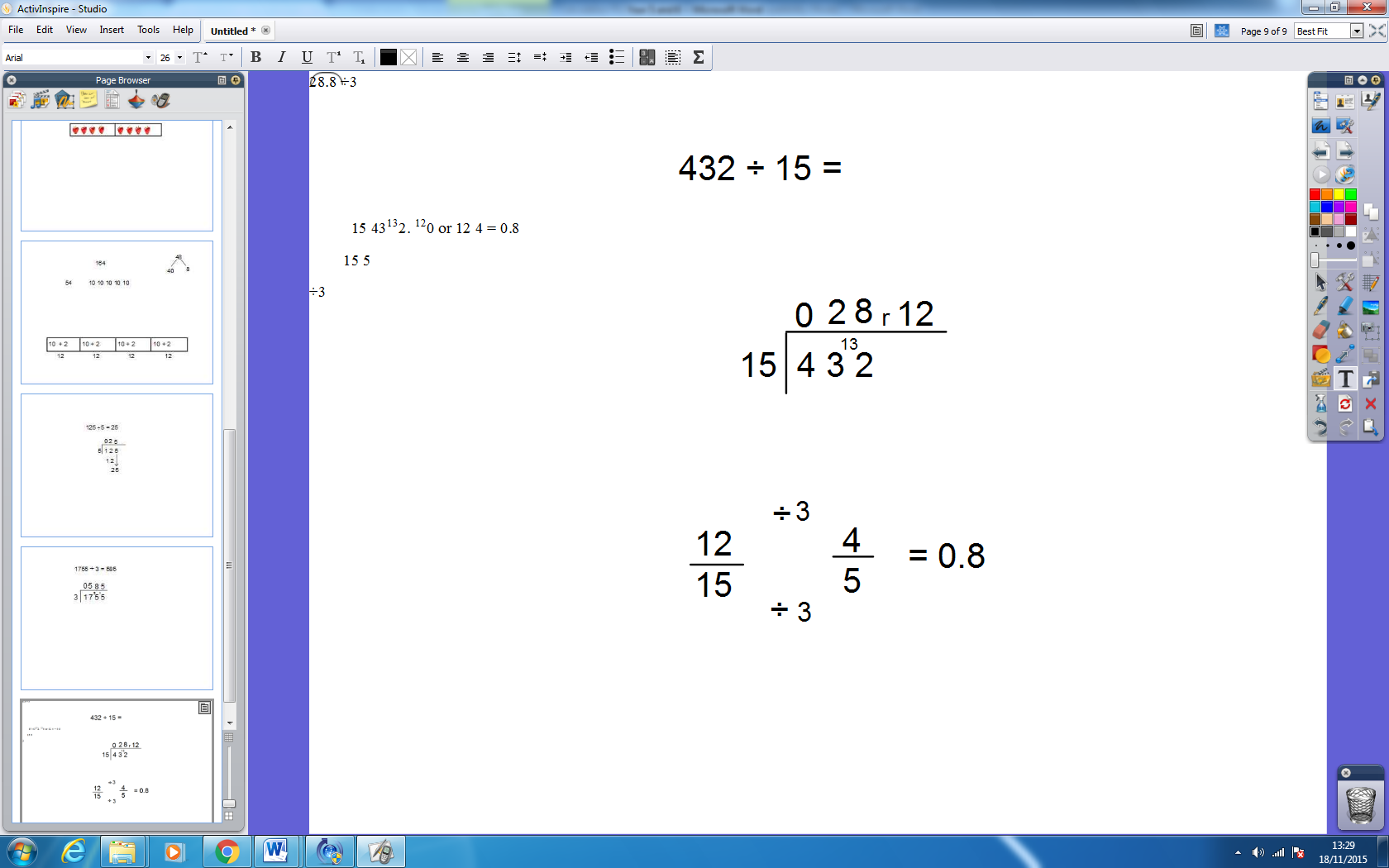


* 5 does not go into 1
* 5 goes into 12 twice remainder 2
* The 2 joins the 5 to become 25 as it was in the tens column
* 5 goes into 25 five times

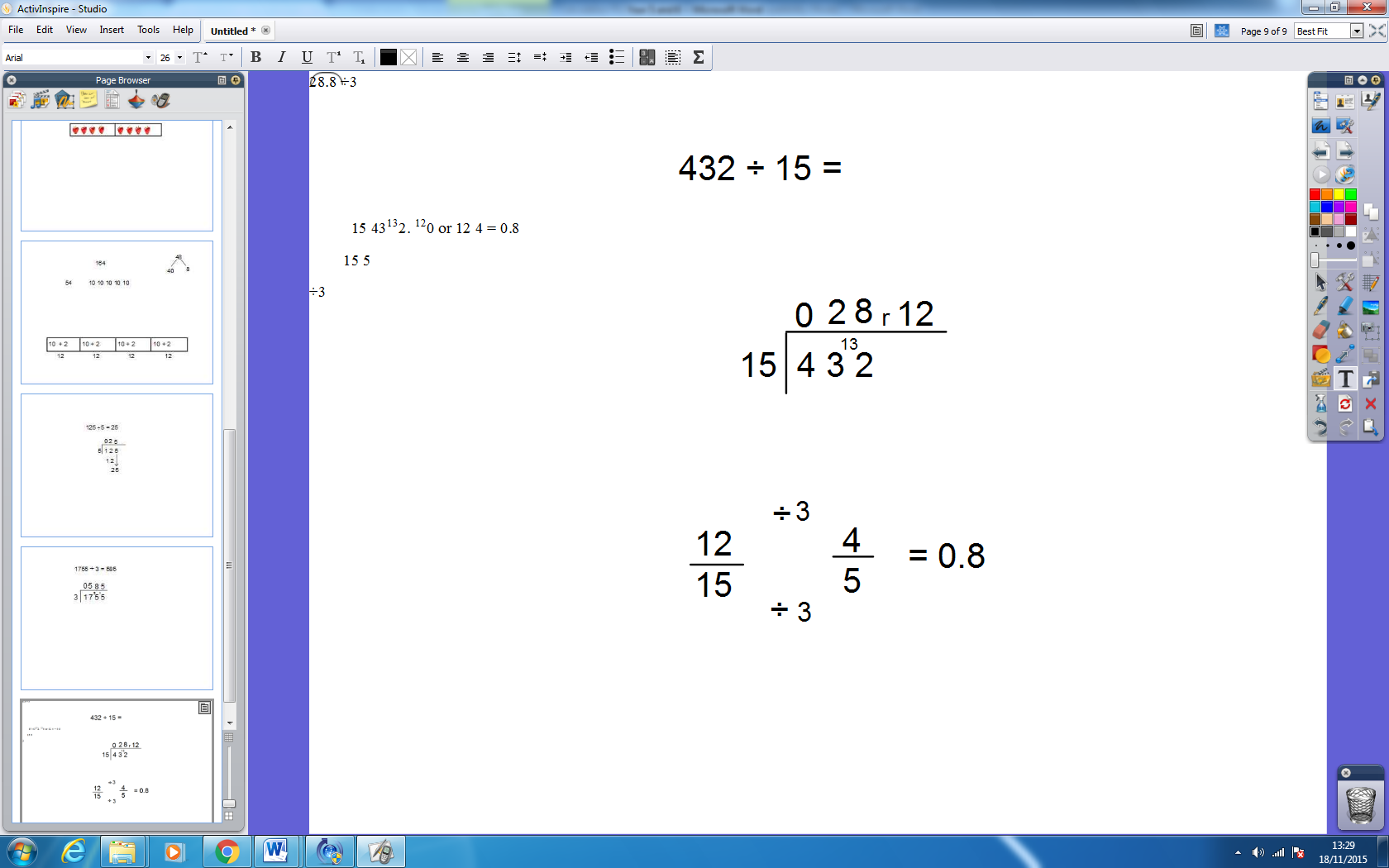
**Formal Division**



Children carry remainders to the right rather than down. If there is a remainder children will sometimes be asked to show the remainder as a fraction or as a decimal.



*As a fraction it would be;*

We divide by three to make the fraction into its simplest form.

*As a decimal;*

