Knowledge Organiser

Number

Year 3 — Multiplication & Division

To divide, we can group or share. It is important to understand how division works and what remainders are so that we can use this skill in real life. When multiplying larger numbers, we can also use our knowledge of partitioning and addition, as well as using known multiplication facts to solve problems.

Builds from Year 2:
Multiplication and division facts for the 2, 5 and 10 multiplication tables.
Calculate mathematical statements for multiplication and division.

This year:
Multiplication and division facts for the 3, 4 and 8 multiplication tables.
Grid method for multiplication.
Dividing 2-digit numbers.
Calculate mathematical statements for multiplication and division.

Leads to Year 4:
Multiplication and division facts for multiplication tables up to 12 × 12.
Mental multiplication and division.
Factor pairs.
Formal written methods for multiplication.

Multiplication and Division Methods

$$23 \times 4 = 92$$

Partition 2-digit numbers into tens and ones.

×	20	3

Multiply by the tens and ones by the 1-digit number.

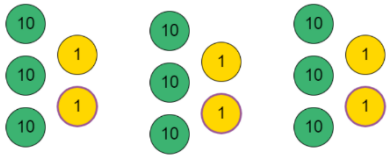
×	20	3
4	80	12

Add the answers for the total.

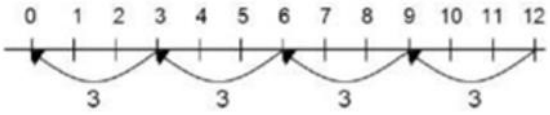
×	20	3	
4	80	12	= 92

Division as grouping.

$$96 \div 3 = 32$$

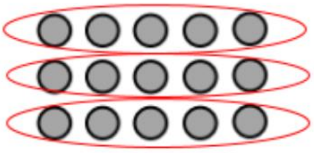


Jumps on a number line.



Division with arrays.

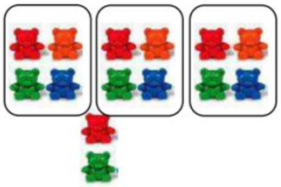
$$15 \div 3 = 5$$



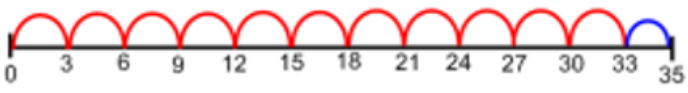
Remainders

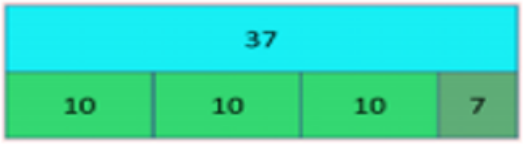
When two numbers do not divide equally, the **remainder** is the amount 'remaining' or 'left over'.

$14 \div 3 = 4$ r2



$35 \div 3 = 11$ r2





$37 \div 3 = 10$ r7

Key Vocabulary

times tables **multiply by** **divide by** **array** **facts** **regrouping** **share** **grid method** **partition** **remainder**