



Fact family

multiplication (x) and division (÷)

Fact families are groups of related facts. They involve two related operations: **addition** and **subtraction**; and **multiplication** and **division**. They help students understand the relationship between these operations – that one is the opposite of the other.

This then develops their number sense as they can use subtraction to check an addition problem and division to check a multiplication problem.

Fact family examples

addition and subtraction:

$$3 + 7 = 10$$

$$7 + 3 = 10$$

$$10 - 3 = 7$$

$$10 - 7 = 3$$

multiplication and division:

$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

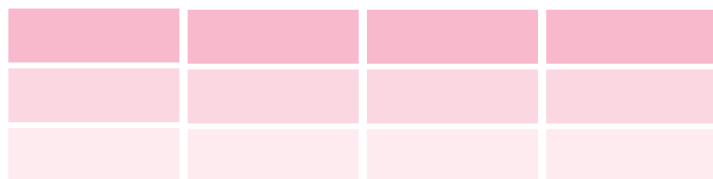
$$12 \div 3 = 4$$

$$12 \div 4 = 3$$

The **array** helps children learn multiplication and division fact families.

This array has 12 small rectangles in it. It shows:

3 rows of 4 (3×4) (rows are horizontal)
4 columns of 3 (4×3) (columns are vertical)



That 12 can be divided into 3 groups with 4 in each group
That 12 can be divided into 4 groups with 3 in each group

($12 \div 3$) – horizontally

($12 \div 4$) – vertically

