Lesson - 2, 5 and 10 times tables

Year: Year 2

Hello, I am Otto! Times tables are a super power. Once you know them, you can multiply and divide quickly without counting every single object. In Year 2 we learn the 2, 5 and 10 times tables, and the division facts that go with them.

Starter activity

Put 5 plates on a table. Put 2 biscuits on each plate. How many biscuits are there altogether? Count in twos as you point to each plate: 2, 4, 6, 8, 10. Now try 5 plates with 5 grapes on each plate. Count in fives: 5, 10, 15, 20, 25. You have just done two multiplications!

Multiplication means equal groups

Definition: multiplication

Multiplication is a quick way to add the same number again and again. 3 groups of 5 is 5 + 5 + 5 = 15. We write 3 × 5 = 15. The sign × is read as "times" or "multiplied by". The answer is called the **product**.



Three groups with five dots in each group: 3 × 5 = 15.

Rule: multiplying in any order

You can multiply in any order. 3 × 5 = 15 and 5 × 3 = 15. So if you know 5 × 3, you also know 3 × 5. This halves the number of facts you must learn!

Worked example 1

Write 4 groups of 2 as an addition and a multiplication.

Addition: 2 + 2 + 2 + 2 = 8. Multiplication: 4 × 2 = 8.

The 2 times table

Key fact: the 2 times table

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24.

These are all **even** numbers. They end in 0, 2, 4, 6 or 8. Multiplying by 2 is the same as **doubling**.

Worked example 2

A spider has 8 legs. A pair of socks has 2 socks. How many socks are in 7 pairs?

7 pairs of 2 socks: 7 × 2. Count in twos seven times: 2, 4, 6, 8, 10, 12, 14. So 7 × 2 = **14 socks**.

The 5 times table

Key fact: the 5 times table

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60.

Every answer ends in 0 or 5. A hand has 5 fingers, so 4 hands have 4 × 5 = 20 fingers. Look at the clock: each number is 5 minutes more than the one before.

Worked example 3

There are 6 bags with 5 apples in each bag. How many apples are there?

6 × 5 = 5 + 5 + 5 + 5 + 5 + 5. Count in fives six times: 5, 10, 15, 20, 25, 30. There are **30 apples**.

The 10 times table

Key fact: the 10 times table

10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120.

Every answer ends in 0. To multiply by 10, move each digit one place to the left and put a 0 in the ones place. So 7 × 10 = 70.

Worked example 4

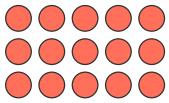
A pack holds 10 pencils. How many pencils are in 9 packs?

9 × 10 = **90 pencils**. The answer is 9 tens, which is 90.

Arrays

Definition: array

An **array** is a picture of objects in neat rows and columns. Each row has the same number of objects.



This array has 3 rows and 5 columns. It shows 3 × 5 = 15 and also 5 × 3 = 15.

Method: writing facts from an array

1. Count the rows and the columns.
2. Write the multiplication: rows × columns.
3. Turn the array on its side to write the other multiplication.

Division facts

Definition: division

Division means sharing into equal groups or finding how many groups. We use the sign ÷, read as "divided by". 10 ÷ 2 = 5 means that 10 shared into 2 equal groups gives 5 in each group.

Key fact: multiplication and division are inverses

Division undoes multiplication. If 4 × 5 = 20 then 20 ÷ 5 = 4 and 20 ÷ 4 = 5. Every multiplication fact gives two division facts.

Worked example 5

Work out 35 ÷ 5.

Ask: what number times 5 makes 35? 7 × 5 = 35, so 35 ÷ 5 = **7**.

Worked example 6

24 children get into pairs for a game. How many pairs are there?

Each pair has 2 children. 24 ÷ 2 = 12, because 12 × 2 = 24. There are **12 pairs**.

Watch out

Do not mix up the tables! 5 × 4 = 20, but 5 + 4 = 9. Remember that multiplying means *equal groups*, while adding just joins two numbers. Also, a number in the 5 times table always ends in 0 or 5, so 32 can never be a 5 times table answer.

Did you know?

Long ago, shepherds counted sheep in fives by making a mark for each group. Our tally marks work the same way: four lines and one across make a group of five. That is

why the 5 times table is so easy to spot on a tally chart.

Otto's tip

Use the 10 times table to find the 5 times table. 5 × 8 is half of 10 × 8. Half of 80 is 40, so 5 × 8 = 40. Check your answer with the number pattern: it should end in 0 or 5.