Ratios and Fractions: What's the Difference?

KS2 MATHS KS3 MATHS Ages 10-14 ⏰ 3 min read

What is a Ratio?

A **ratio** is a way of comparing two or more amounts. It tells you the relationship between different quantities. For example, if a recipe says you need **2 cups of flour to 1 cup of sugar**, that's a ratio of **2:1**. The ratio shows how much of one thing you need compared to another thing.

Ratios use a **colon (:)** to separate the numbers. So **3:5** means **three parts to five parts**. Ratios are really useful when you want to compare different things or scale recipes and amounts up or down.

Think of it like a playlist: if you have a ratio of **3:2** for pop songs to rock songs, that means for every **3 pop songs, you have 2 rock songs**. It describes the balance between the two types.

What is a Fraction?

A **fraction** represents a **part of a whole**. When you cut a pizza into **8 slices** and eat **3 slices**, you've eaten **3/8** of the pizza. The number on top (called the **numerator**) shows how many parts you have. The number on the bottom (called the **denominator**) shows how many equal parts the whole is divided into.

Think of it like a chocolate bar: if your chocolate bar has **10 squares** and you eat **4 squares**, you've eaten **4/10** of the bar. The fraction tells you exactly what portion of the whole you've got.

How Are They Different?

The key difference is **what they describe**. A **fraction** is always about **part of one whole thing**. A **ratio** compares **two or more separate amounts** to each other.

Here's another way to think about it: if you have **4 apples and 6 oranges**, the ratio is **4:6** (or **2:3** when simplified). But if you have **10 pieces of fruit total** and **4 of them**

are apples, the fraction is **4/10** (or **2/5** simplified). The fraction tells you what part of all the fruit is apples. The ratio tells you the relationship between apples and oranges.

Fractions always add up to make one whole, while **ratios** are just about comparing amounts—they don't have to add up to anything specific. Both are important tools in maths for understanding how quantities relate to each other!