

Decimals and Fractions Are the Same Thing

KS2 MATHS

KS3 MATHS

Ages 9-14 ⌚ 3 min read

What Are Fractions and Decimals?

A **fraction** is a way of writing a part of something. When you cut a pizza into **8 slices** and eat **3** of them, you've eaten **3/8** of the pizza. The bottom number (called the **denominator**) tells you how many equal pieces the whole is split into. The top number (called the **numerator**) tells you how many pieces you have.

A **decimal** is another way of showing the same idea, but using a dot called a **decimal point**. Instead of saying **3/8**, you could say **0.375**. They mean exactly the same thing!

Think of it like this: a fraction is like saying "I have **3 out of 8** cookies" and a decimal is like saying "I have **37.5% of a packet** of cookies". Different words, same amount of cookies!

How Do You Convert Between Them?

Converting a fraction to a decimal is actually quite simple. You just divide the top number by the bottom number. For example, **1/4** means **1 ÷ 4**, which equals **0.25**. Try another one: **1/2** means **1 ÷ 2**, which equals **0.5**.

Going the other way is trickier, but the idea is the same. If you have **0.5**, you can turn it into a fraction by saying "**0.5** is the same as **5 tenths**", which is **5/10**. Then you can simplify it to **1/2**.

Think of it like translating between two languages. "**1/2**" and "**0.5**" are different words that describe the same idea — you're just using a different system to say it.

Why Do We Need Both?

You might wonder why mathematicians didn't just pick one way and stick with it! The truth is, each system has its own superpower. **Fractions** are great for cooking, sharing pizza, and understanding proportions easily. **Decimals** are much better for money (like **£1.50**) and measurements (like **2.5 metres**).

Understanding that they're connected helps you be flexible with numbers. You can switch between them depending on what makes most sense for the problem you're solving. That's a really important maths skill!