Equivalent Fractions and How to Find Them

KS2 MATHS FRACTIONS Ages 9-12 ⏰ 3 min read

What Are Equivalent Fractions?

Equivalent fractions are different fractions that represent exactly the same amount or value. They look different, but they're worth the same. For example, **1/2** is the same as **2/4**, and both are the same as **4/8**. They all represent half of something.

Think of it like different ways to describe the same pizza. If you cut a pizza into **2** equal slices and eat **1**, you've eaten half. If you cut the same pizza into **4** equal slices and eat **2**, you've still eaten half. The fractions **1/2** and **2/4** are equivalent because you've eaten the same amount of pizza.

How to Find Equivalent Fractions

There's a simple rule: multiply (or divide) both the **numerator** (the top number) and the **denominator** (the bottom number) by the same number. The key is that you must always use the same number for both.

Let's use **1/3** as an example. If you multiply both the top and bottom by **2**, you get **2/6**. If you multiply both by **3**, you get **3/9**. If you multiply both by **4**, you get **4/12**. All of these—**1/3**, **2/6**, **3/9**, and **4/12**—are equivalent fractions.

Think of it like a recipe. If you double all the ingredients, you make twice as much food, but the recipe still tastes the same. If you multiply the numerator and denominator by the same number, the fraction still represents the same amount.

Why Does This Work?

The reason this works is because you're really multiplying the fraction by **1** in disguise. When you multiply the top and bottom by **2**, you're multiplying by **2/2**, which equals **1**. Multiplying anything by **1** doesn't change its value—it just changes how it looks.

The Other Direction

You can also divide both the numerator and denominator by the same number to find equivalent fractions. For example, **6/8** divided by **2** on top and bottom gives you **3/4**. When the numerator and denominator can't be divided by any number except **1**, you have the **simplest form** of the fraction.

Equivalent fractions are super useful in maths because they help you compare fractions, add and subtract them, and solve real-world problems.