



$$\frac{1}{4} + \frac{1}{2} = \frac{3}{4}$$

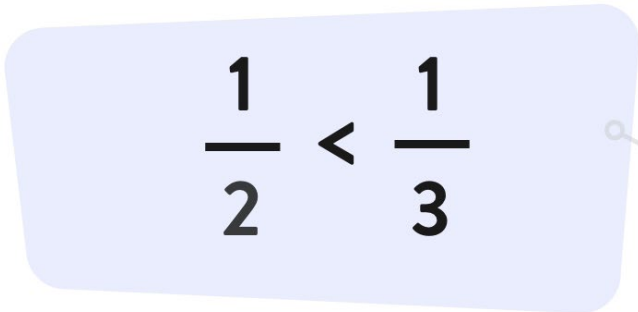
How To Take On 3 Common Fractions Challenges and Stop the Fractions Struggle

Fractions aren't always as easy as pie. Learning and teaching fractions come with their fair share of challenges, which can be frustrating for both teachers and students. How can you and your students take on the most common fraction challenges? Read on to learn about fractions solutions that make learning and knowing how to teach fractions simpler!

Fraction Challenge 1:

Thinking a large denominator means a larger size.

A common fraction misconception students make is thinking that a larger denominator equals a larger size. So students may make a mistake like:


$$\frac{1}{2} < \frac{1}{3}$$

How to Teach Fractions Solution 1: Understanding the denominator.

Students need to understand that the bottom number in a fraction, the denominator, comes from the number of intervals in 1. And the top number of the fraction, the numerator, comes from the number of intervals between 0 and that point. So if a fraction has a greater denominator, it means that the intervals, or pieces, are smaller.

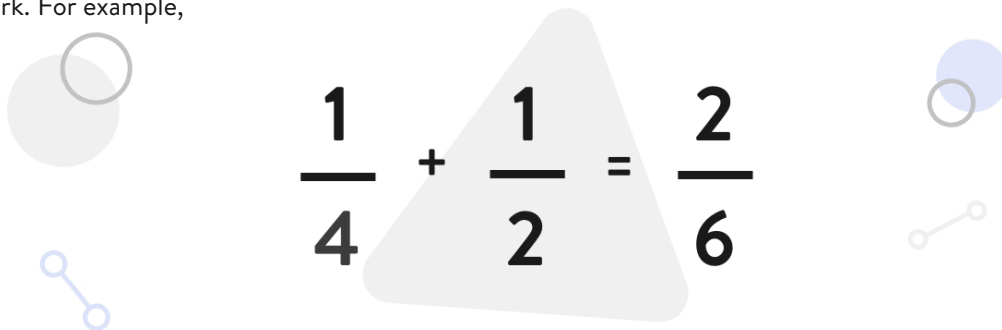
The smaller the intervals, the more of them it takes to make 1. Visual representations, like shaded area models, help students see the size of the fraction. [ExploreLearning Frax](#) provides students with opportunities to work with shaded area models, length models, and more.



Fraction Challenge 2:

Adding, subtracting, multiplying, and dividing unlike denominators.

Students will often perform operations between unlike denominators and not really understand why that isn't going to work. For example,

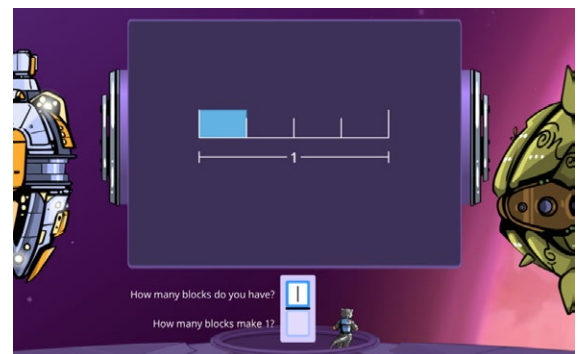


$$\frac{1}{4} + \frac{1}{2} = \frac{2}{6}$$

How to Teach Fractions Solution 2: Reinforce fraction size.

It's important to reinforce the size of each fraction, as we would a number, so students are able to visualize a fraction more easily. When students understand fractions as numbers they also better understand fraction arithmetic.

They learn how to make sense of fractions operations and can draw connections to their work with whole numbers (e.g. the sum of two fractions must be larger than each individual fraction and therefore the sum of $1/4 + 1/2$ can't be $2/6$). Number lines and length models can help students understand the size of fractions. Frax exposes students to both.

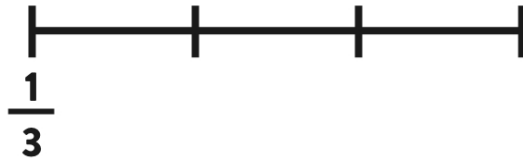


Fraction Challenge 3:

Misconceptions about number lines.

A very common problem with number lines is students counting the marks on the line and not the intervals/gaps.

Show $\frac{1}{3}$

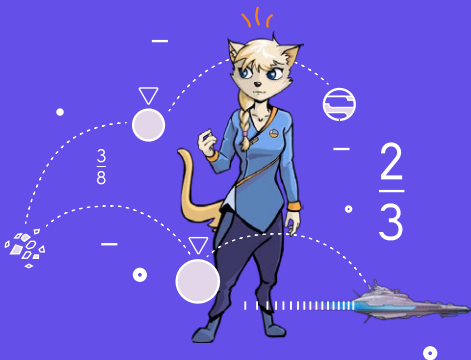


How to Teach Fractions Solution 3: Become familiar with fraction number lines.

Students need to get familiar with number lines! Frax gives students ample practice and uses language like, “count the gaps to determine the size of the unit fraction” to reinforce the concept.



Tackle these fraction challenges and more with ExploreLearning Frax!



Frax (grades 3-5) is adaptive and game-based, it uses the latest research-based instructional methods to create a better way to learn fractions. The fun challenges, personalized instruction, and motivating rewards help students build their skills and understanding of fractions.

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