

ADDING FRACTIONS. 1

Edric Cane CommonSenseMath.org.

Operations on fractions are a topic that remains a challenge for many [Middle School](#) and High School students, sometimes all the way to remedial classes in Community Colleges. It shouldn't be. First, a diagnostic.

The rule for multiplying fractions is not often a challenge. Multiplying the numerators and multiplying the denominators makes sense. Adding and subtracting is the real challenge. Too often, **“Add the numerators and keep the common denominator”** becomes confused with the rule for multiplying. So, students add the numerators and add the denominators which gives the wrong answer. This is the most common error.

The problem is entrusting the knowledge to memory. With no understanding, nothing protects the memorized rule from being mis-remembered. Hence that most frequent confusion with the rule for multiplication.

On this important topic, we will propose overtime a number of short approaches. But many students are helped by just helping them make a connection between the rule for adding fractions and the familiar experience of adding anything else. It's as simple as asking:

What's 2 dollars + 2 dollars?

So, what's 2 fifths + 2 fifths?

What's 5 books + 3 books?

So, what's 5 sixteenths of an inch + 3 sixteenths of an inch?

What's 9 cookies minus 3 cookies?

So, what's 9 tenths minus 3 tenths?

No rules here. Just asking questions and a connection with common sense.