

Fractions Bite – How Come All These Fractions Look Different But Equal the Same Thing?

If you watched the previous video in this series, you saw that

$$\frac{1}{2} = \frac{4}{8}$$

and it would be reasonable to ask why fractions are so weird.

The answer is twofold:

- 1) Fractions are definitely weird, but also
- 2) Fractions aren't the only numbers that do this

For example, consider that

$$2 \cdot 3 = 6$$

$2 \cdot 3$ and 6 are equal, even though they look different, and $2 \cdot 3$ and 6 are each useful in different situations. So how do we decide which answer to use? In this case, you'd need more context. Let's look at a couple problems:

- 1) Evaluate $2 \cdot 3$

When you're asked to evaluate, that means to use the given operation(s) to come up with a sum, difference, quotient or, in this case, product. The answer would be 6.

$$2 \cdot 3 = \boxed{6}$$

- 2) Express 6 as a product of two prime numbers

In this case the answer would be $6 = 2 \cdot 3$

$$6 = \boxed{2 \cdot 3}$$

