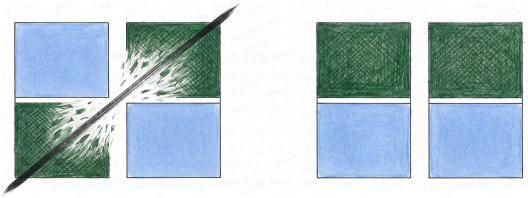
Write The Goal Unit First

multiply by fractions that are each worth exactly one, until nothing is left but the unit you wanted.



The definition, and every word in it is load-bearing

S §5.6

"Converting measurements to a different but equivalent unit of measure by multiplying with a fractional form of 1 to obtain a desired unit of administration."

"A FRACTIONAL FORM OF 1"

Every fraction is worth exactly one

30 mL / 1 oz is 1. 1 kg / 2.2 lb is 1. **You never change the quantity — only the clothes it wears.**

"DESIRED UNIT OF ADMINISTRATION"

The target is what you hand to a patient

mL, tab, gtt — chosen **before** anything else is written down.

The source names the method a second way — "creating proportions that state equivalent ratios." Both appear on exams. The equivalencies come from § 5.4 and are assumed memorised: the method consumes them, it does not generate them. **(§ 5.6 sends you to "Section 5.7" for them — stale: § 5.7 is Conversions.)**

Four rules, and then every problem is the same problem

S §5.6

Learn these and the six worked problems that follow are one shape in six costumes.

RULE 1

Identify the goal unit first

Before you look at a single number in the question. Every later fraction exists only to reach it.

RULE 2

Fraction 1's numerator matches the goal

Then complete it with the equivalency or the concentration you already know.

RULE 3

Doomed units go on the diagonal

Bottom-left cancels top-right. Line them up **vertically** and nothing cancels — and no arithmetic afterwards will fix it.

RULE 4

Either way up is legal

An equivalency is a relationship, not a sentence. Turn it over whenever the diagonal needs it.

Rule 4 is the one students distrust, and it is the one that unlocks the method. "1 kg = 2.2 lb" was learned as a sentence, and sentences have a direction — but the source is explicit that **numerator and denominator are interchangeable because they are expressing a relationship.** Write the equivalency whichever way up puts the doomed unit on the diagonal. You are not obliged to write it in the direction you memorised it.

The mechanical finish never varies: cross out the diagonal units → multiply across the numerators → multiply across the denominators → divide.