Unit 3

3.2 Converting Measurements

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Objective

Understand how to work between multiple measurement systems

Start

Intro

It would be much simpler if everyone used the same measurement system, or if everyone spoke the same language, or if everyone ran linux, but we live in a fallen world, and part of that is that man seeks to do things their own way.

And yes there is beauty in diversity, but unfortunately for you students, it means a lot more work

Proportional Reasoning

Remember rates from Unit 1? Essentially we're doing something very similar. We are comparing two things of different units in a fraction.

Last class I partially introduced it, with 2.54 cm in 1 inch.

But we can do that for more of the measurements:

Now if we can remember this one conversion, we can figure out any length!

We know that 1 inch = 2.54 cm

We also know that 12 inches = 1 foot.

So if we multiply 2.54 by 12, we get 30.48 cm in one foot, or 0.3048 meters (remember: centi-meters)

and if we wanted to go the other way around, from 1 cm to inches, we would just change the formula

Instead of

$$\frac{2.54cm}{1inch}$$

, we would have

$$\frac{1inch}{2.54cm}$$

, or 0.393700787 inches in 1 cm.

But why stop here, try and figure out the rest on your own!

Find:

- mm to in
- m to feet
- m to yards
- km to mile
- in to mm
- yards to m
- mile to km

Example 1

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Example 2

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Assignment

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End activity