Example for the `lua-physical` package

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Compile this LuaLaTeX file with the command 'lualatex lua-physical_example.tex'.

1. Find the volume of a cuboid with lengths 12 cm, 150 mm and 1.5 m.

$$V = a \cdot b \cdot c = 12\,\text{cm} \cdot 150\,\text{mm} \cdot 1.5\,\text{m} = \underline{27.0\,\text{dm}^3}$$

2. Convert 12 in to the unit cm.

$$l = 12\,\text{in} \cdot \frac{2.54\,\text{cm}}{\text{in}} = 30.48\,\text{cm}$$

3. Calculate the time, a lightray travels from the surface of the sun to the earth. The mean distance from the sun to the eart is $1.496 \cdot 10^8$ km. The speed of light is 299 800 km/s.

$$t = \frac{d}{v} = \frac{1.496 \cdot 10^8\,\text{km}}{299\,800\,\text{km/s}} = \underline{8.32\,\text{min}}$$