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 $12\,\text{cm}$, $150\,\text{mm}$ and $1.5\,\text{m}$.

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

2. Convert $12\,\text{in}$ 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 $1.496 \cdot 10^8\,\text{km}$. The speed of light is $299\,800\,\text{km/s}$.

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