Example for the `lua-physical` package

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Compile this LuaLaTeXfile with the command '`lualatex lua-physical_example.tex`'.

1. Find the volume of a cuboid with lengths 12.0 cm, 150.0 mm and 1.5 m.

$$V = a \cdot b \cdot c = 12.0\,\mathrm{cm} \cdot 150.0\,\mathrm{mm} \cdot 1.5\,\mathrm{m} = \underline{27.0\,\mathrm{dm}^3}$$

2. Convert 12.0 in to the unit cm.

$$l = 12.0\,\mathrm{in} \cdot \frac{2.54\,\mathrm{cm}}{\mathrm{in}} = 30.48\,\mathrm{cm}$$

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 299 800.0 km/s.

$$t = \frac{d}{v} = \frac{1.496 \cdot 10^8\,\mathrm{km}}{299\,800.0\,\mathrm{km/s}} = \underline{8.32\,\mathrm{min}}$$