

**Task:**

If a 130-lb patient is prescribed 38mg of a cholesterol-lowering drug daily, what dosage is the patient receiving in mg/kg of his body weight?

**Solution:**

$$1 \text{ lb} = 0,4536 \text{ kg}$$

We have to convert lb to kg

The conversion factor is

$$f = 0.4536$$

The weight of the patient is

$$m(\text{kg}) = m(\text{lb}) \cdot f = 130 \cdot 0.4536 = 58.97 \text{ kg}$$

The dosage is

38 mg for 58.97 kg

x mg for 1 kg

$$\text{The dosage is} = 38 / 58.97 = 0.644 \text{ mg/kg}$$

**Answer:** The dosage is 0.644 mg/kg