

Unit Conversions (Dimensional Analysis) Date: October 30

How do you do the conversion

Convert 24.75 Kg to grams
Answer - 24,750

Steps →

① Identify the unit of measure you need to convert.

$$24.75 \text{ Kg}$$

② Identify the equality between the unit of measure you want and the unit of measure you need your answer to be.

$$24.75 \text{ Kg to grams} \quad | \quad 1 \text{ Kg} = 1000 \text{ grams}$$

③ Set up multiplication ratios (think multiplication of fractions) where the units of measure will cancel each other out.

$$\frac{24.75 \text{ Kg}}{1} \cdot \frac{1000 \text{ g}}{1 \text{ Kg}} = 24,750 \text{ grams}$$

④ Fill in appropriate numbers from your equality.

$$\frac{24.75 \text{ Kg}}{1} \cdot \frac{1000 \text{ g}}{1 \text{ Kg}} = 24,750$$

$$1 \text{ Kg} = 1000 \text{ g}$$

Summary - It's important to compare measures using the type of unit, because around the world they have different units. That is why it's important to learn how to use unit conversions.