

Dimensional analysis + Conversion factors

A conversion factor is a ratio that has the value of one. [Ex] $\frac{100 \text{ pennies}}{1 \text{ dollar}} = 1$

This method of converting one unit to another is called dimensional analysis.

$$\frac{30.48 \text{ cm}}{1 \text{ foot}} \times 4.5 \text{ feet} = 137.16 \text{ cm}$$

↑
equal to one
"conversion factor"

Date
+3s

$$30 \text{ students} \quad \frac{4 \text{ slices}}{\text{students}} \quad \frac{12 \text{ slices}}{\text{pizza}}$$

$$\frac{1 \text{ pizza}}{12 \text{ slices}} \times \frac{4 \text{ slices}}{\text{student}} \times \frac{30 \text{ students}}{1} = 10 \text{ pizzas}$$