

Worked example - grams to moles

To convert grams to moles it is just a case of dividing the number of grams of the compound by the molecular weight. This is shown in the equation introduced in the last lecture:

$$m = g / MW$$

Where:

m = moles

g = mass in grams

MW = molecular weight (grams per mole)

A worked example:

You have 3 g of compound X, and compound X has a molecular weight of 30 g per mole. How many moles do you have?

Well, using the above equation:

$$m = g / MW$$

Where:

m = moles = ?

g = mass in grams = 3 g

MW = molecular weight (grams per mole) = 30 g/mol

This gives:

$$m = 3 / 30$$

which means that m = 0.1 moles.