

Relative Formula Mass

Relative formula mass is also called Mr for short.
It's the only time where mass has NO UNITS!!!

Question: What is the mass of NH_3 ?

$$\begin{array}{r} 1 \times \text{N} = 1 \times 14 = 14 \\ 3 \times \text{H} = 3 \times 1 = \underline{\underline{3}} \\ \hline 17 \end{array}$$

Percentage Mass

Step 1 - Calculate the M_r of NH_3

$$\begin{array}{r} 1 \times \text{N} = 1 \times 14 = 14 \\ 3 \times \text{H} = 3 \times 1 = \underline{\underline{3}} \\ \hline 17 \end{array}$$

Step 2 - Turn the fraction into a percentage

$$14 / 17 \times 100 = 82.4\% \text{ (to 3 s.f.)}$$

This means that 82.4% of the mass of ammonia is nitrogen. WOW!