M CONCENTRATION

1. 1.5 M NaCl = \frac{1.5 \text{ moles NaCl}}{1,000 \text{ ml}}

Since 1 mole of NaCl weighs 58.5 g,
1.5 moles weigh \(1.5 \times 58.5 = 87.75\) g.

So, add \(\frac{87.75\text{ g NaCl}}{1,000\text{ ml}}\).

2. Since \(\frac{87.75\text{ g NaCl}}{1,000\text{ ml}} = 1.5 \text{ M NaCl}\),

\[\frac{87.75\text{ g}}{1,000\text{ ml}} = \frac{x}{100\text{ ml}}\]

1,000 \(x = 8,775\)

\[x = \frac{8,775}{1,000} = 8.775\text{ g}\]

\[\Rightarrow \frac{8.775\text{ g}}{100\text{ ml}} = 8.775\%\]