

M CONCENTRATION

PAGE 7

$$\textcircled{1} \quad 1.5 \text{ M NaCl} \equiv \frac{1.5 \text{ moles NaCl}}{1,000 \text{ ml}}$$

since 1 mole of NaCl weighs 58.5g
1.5 moles " " " $1.5 \times (58.5) = 87.75 \text{ g}$

so, add $\frac{87.75 \text{ g NaCl}}{1,000 \text{ ml}}$

$$\textcircled{2} \quad \text{since } \frac{87.75 \text{ g NaCl}}{1,000 \text{ ml}} = 1.5 \text{ M NaCl}$$

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

$$1,000x = 8,775$$

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

$$\Rightarrow \frac{8.775 \text{ g}}{100 \text{ ml}} \equiv \boxed{8.775\%}$$