

Name: _____

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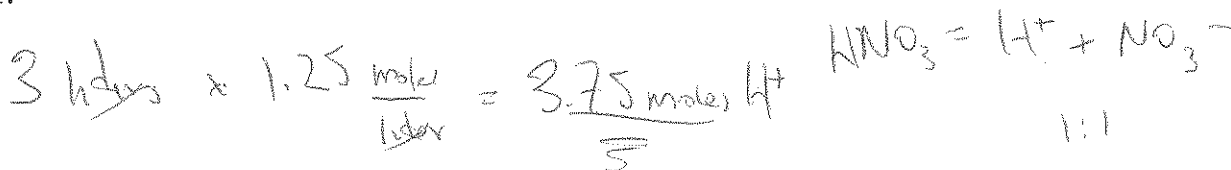
Molarity to Moles and Concentration

How many moles of dissolved H^+ are in 2 liters of 3M hydrochloric acid and water solution?



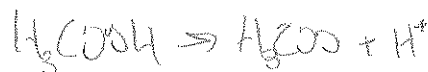
$$2 \text{ liters} \times \frac{3 \text{ moles}}{1 \text{ liter}} = \underline{6 \text{ moles } H^+}$$

How many moles of dissolved H^+ are in 3 liters of 1.25M HNO_3 and water solution?



How many moles of dissolved H^+ are in 0.5 liters of 3M H_3COOH water if this chemical (acetic acid) only gives off one H^+ ?

$$0.5 \text{ liters} \times \frac{3 \text{ moles}}{1 \text{ liter}} = 1.5 \text{ moles } H^+$$



How many moles of dissolved OH^- are in 0.75 liters of 4M sodium hydroxide ($NaOH$) and water solution?

$$0.75 \text{ liters} \times \frac{4 \text{ moles}}{1 \text{ liter}} = 3 \text{ moles } OH^-$$

How many moles of dissolved OH^- are in 1200 milliliters of 0.25M KOH and water solution?

$$1.2 \text{ liters} \times \frac{0.25 \text{ moles}}{1 \text{ liter}} = 0.3 \text{ moles}$$

Neutralized by same moles of $NaOH$ or H^+