## Friday Worksheet Volumetric 4

Name:
0.326 g of a pure acid, $\mathrm{H}_{2} \mathrm{X}(\mathrm{s})$, reacts with exactly 100 mL of $0.105 \mathrm{M} \mathrm{NaOH}(\mathrm{aq})$.

A reaction occurs according to the equation
$\mathrm{H}_{2} \mathrm{X}(\mathrm{s})+2 \mathrm{NaOH}(\mathrm{aq}) \rightarrow \mathrm{Na}_{2} \mathrm{X}(\mathrm{aq})+2 \mathrm{H}_{2} \mathrm{O}(\mathrm{I})$
a. Calculate:
i. the amount, in mol, of NaOH that is added to the acid $\mathrm{H}_{2} \mathrm{X}$.
ii. the amount, in mol, of acid $\mathrm{H}_{2} \mathrm{X}$.
iii. the molar mass, in $\mathrm{g} \mathrm{mol}^{-}$, of the acid $\mathrm{H}_{2} \mathrm{X}$
b. Identify acid $\mathrm{H}_{2} \mathrm{X}$

