ADDITIONAL PAGE FOR ANSWERING QUESTION 3.

c. (i) Reducing Agent
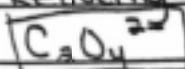
$\boxed{C_2O_4^{2-}}$

(ii) · MnO_4^- (aq) $M = \dfrac{\# \text{moles}}{\# L}$ # moles = (M)(# L)

moles = (.0130 M)(.0178) = $\boxed{2.67 \times 10^{-4} \text{ moles}}$
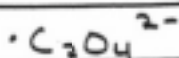
· $C_2O_4^{2-}$

moles = 2.67×10^{-4} moles $MnO_4^- \times \dfrac{5 \text{ moles } C_2O_4^{2-}}{2 \text{ moles } MnO_4^-}$ = $\boxed{6.68 \times 10^{-4} \text{ moles}}$

(iii). Total # of moles of $C_2O_4^{2-}$

.345g $BeC_2O_4 \times \dfrac{1 \text{ mole}}{97.012 g}$ = .00356 moles BeC_2O_4

$BeC_2O_4 \rightarrow Be^{2+} + C_2O_4^{2-}$
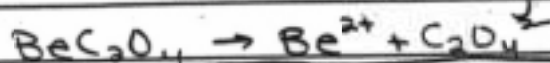
$\boxed{.00356 \text{ moles } C_2O_4^{2-}}$

(iv). mass percent of $BeC_2O_{4(s)}$ in the impure sample

STOP

If you finish before time is called, you may check your work on this part only.
Do not turn to the other part of the test until you are told to do so.