

4. (a) $V_B - V_A = \Delta U/(-e) = (3.94 \times 10^{-19} \text{ J})/(-1.60 \times 10^{-19} \text{ C}) = -2.46 \text{ V}.$
(b) $V_C - V_A = V_B - V_A = -2.46 \text{ V}.$
(c) $V_C - V_B = 0$ (Since C and B are on the same equipotential line).