

Supplementary Problems (S-):

6. a) What change in potential energy does a $+6\ \mu\text{C}$ charge experience in moving from a position where the potential is 60 volts to one where it is 35 volts? Express your answer in Joules and in eV. b) If the charge has a mass of 2 mg, and the charge was initially at rest, and if all the potential energy change went into changing the particles kinetic energy, how fast would the particle be going when it reached the 35 volt position?

Answers to Supplementary Problems:

6. a) decrease of 1.5×10^{-4} Joules = 9.37×10^{14} eV; b) 12.25 m/sec = 27.4 mph.