21 In a wire, the drift velocity of electrons is 2.0×10^{-4} m s^{-1} when a current of 3.0 A flows. If the cross-sectional area of the wire is doubled and the current remains the same, what is the new drift velocity?

A 4.0×10^{-4} m s^{-1}

B 1.0×10^{-4} m s^{-1}

C 2.0×10^{-4} m s^{-1}

D 0.5×10^{-4} m s^{-1}

22 A negatively charged oil drop of mass *m* is between two horizontal parallel metal plates a