20 A long wire of radius 1.5 mm and length 2.0 m carries a steady current 5.0 A. There are approximately 1.5×10^{24} mobile electrons in the wire.

What is the drift velocity of the electrons in the wire?

A 4.2×10^{-5} m s^{-1} **B** 7.2×10^{-5} m s^{-1} **C** 7.2×10^{-3} m s^{-1} **D** 2.9 m s^{-1}

21 A fixed resistor and a diode are combined by connecting them in series. The total potential