

22. (a) The current in each strand is $i = 0.750 \text{ A}/125 = 6.00 \times 10^{-3} \text{ A}$.
- (b) The potential difference is $V = iR = (6.00 \times 10^{-3} \text{ A})(2.65 \times 10^{-6} \Omega) = 1.59 \times 10^{-8} \text{ V}$.
- (c) The resistance is $R_{\text{total}} = 2.65 \times 10^{-6} \Omega/125 = 2.12 \times 10^{-8} \Omega$.