A solid conducting sphere of radius 2 m carries a net charge of 16 C. (a) Where is the charge located? (b) What is the electric potential at the center of the sphere?

\[ V(\text{at } r = 2) = \frac{K(16)}{2} = 8kU_{\text{net}} \]

\[ \Delta V = V_b - V_a = -\int_{a}^{b} E \cdot dS \]

\[ V_b - V_a = 0 \]

\[ V_b = V_a = 8kV \]