

例題2 解答例

(1) 点A:

$$V_A = k \frac{Q}{r_A} = 9.0 \times 10^9 \cdot \frac{+3.0 \times 10^{-8}}{0.60} = 4.5 \times 10^2 \text{ V}$$

$$U_A = qV_A = -2.0 \times 10^{-9} \cdot 4.5 \times 10^2 = -9.0 \times 10^{-7} \text{ J}$$

点B:

$$V_B = k \frac{Q}{r_B} = 9.0 \times 10^9 \cdot \frac{+3.0 \times 10^{-8}}{0.90} = 3.0 \times 10^2 \text{ V}$$

$$U_B = qV_B = -2.0 \times 10^{-9} \cdot 3.0 \times 10^2 = -6.0 \times 10^{-7} \text{ J}$$

$$(2) \quad W_{B \rightarrow A} = U_B - U_A = 3.0 \times 10^{-7} \text{ J}$$