

① Найти расстояние между поверхностями

$$\frac{x^2}{25} + \frac{y^2}{16} + \frac{z^2}{9} = 1 \quad \text{и} \quad x^2 + y^2 + z^2 = 4$$

②

$$\int_0^{2\pi} \int_0^{2\pi} \left(\left(\frac{\partial u}{\partial x} \right)^2 + \left(\frac{\partial u}{\partial y} \right)^2 + 4u \sin \frac{y}{4} \right) dx dy = J[u]$$

$$u|_{y=0} = 0, \quad \frac{\partial u}{\partial x} \Big|_{x=0} = \sin \frac{5y}{4}$$