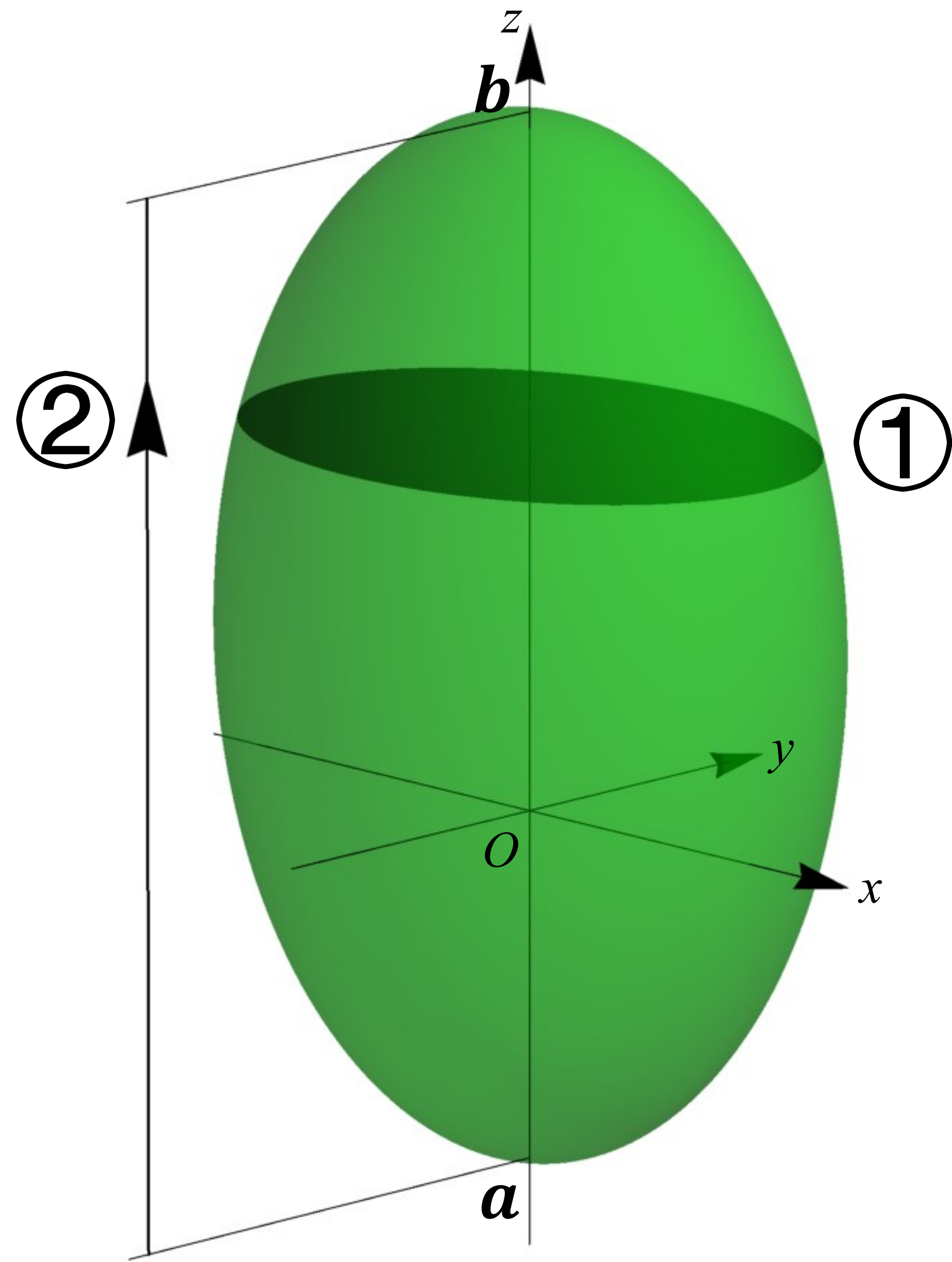


$$\begin{aligned}
 \textcircled{2} & \iiint_{\Omega} f(x, y, z) \, dx dy dz \\
 &= \int_a^b g(z) \, dz \\
 &= \int_a^b \left[ f(z) \iint_{D_z} dx dy \right] dz \\
 &= \int_a^b f(z) \, dz \iint_{D_z} dx dy
 \end{aligned}$$



$$\begin{aligned}
 \textcircled{1} g(z) &= \iint_{\Omega_z} f(z) \, dx dy \\
 &= f(z) \iint_{D_z} dx dy
 \end{aligned}$$