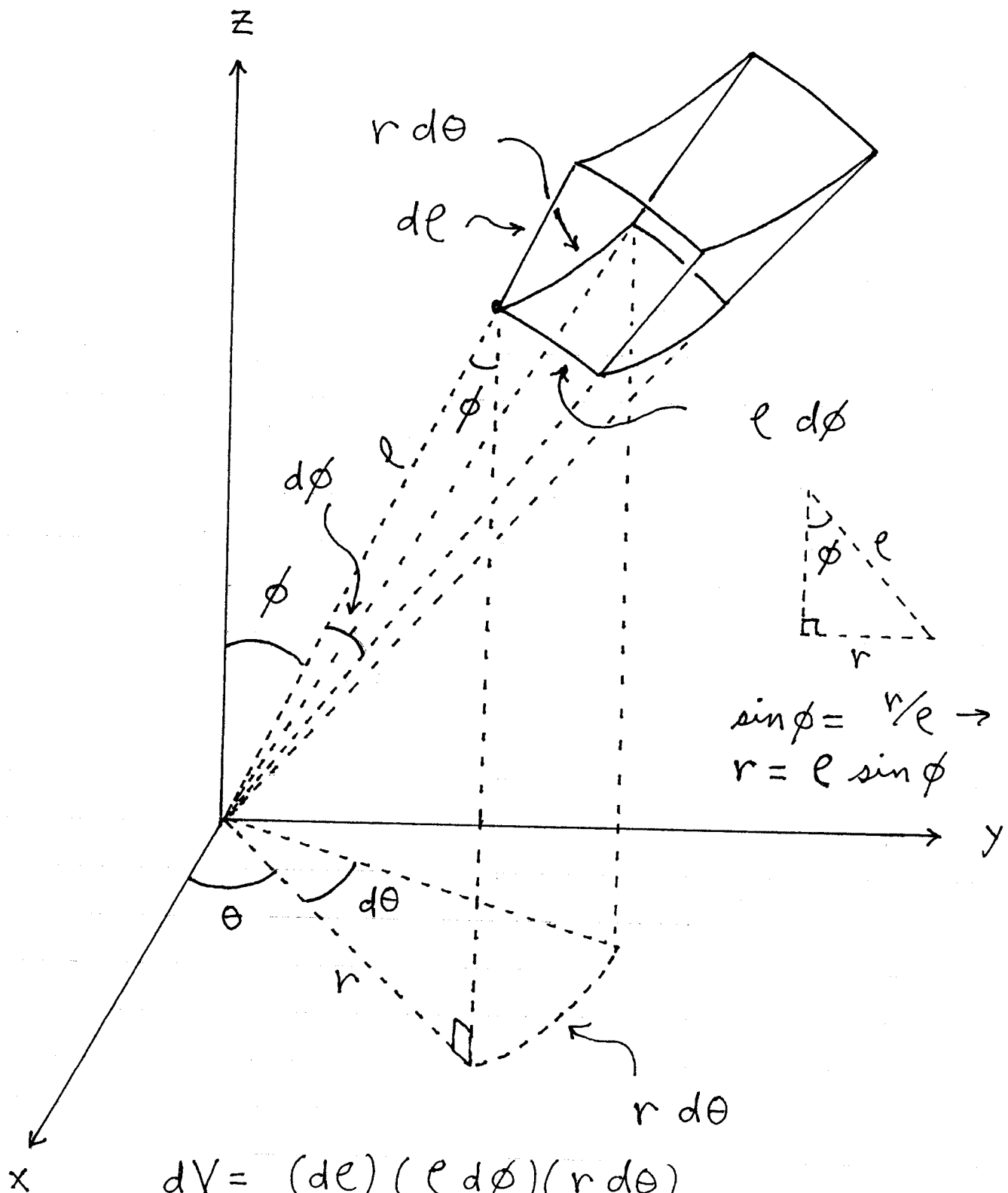




$$\begin{aligned}
 dV &= (dr) (\ell d\phi) (r d\theta) \\
 &= (dr) (\ell d\phi) (\ell \sin \phi d\theta) \\
 &= \ell^2 \sin \phi dr d\phi d\theta
 \end{aligned}$$