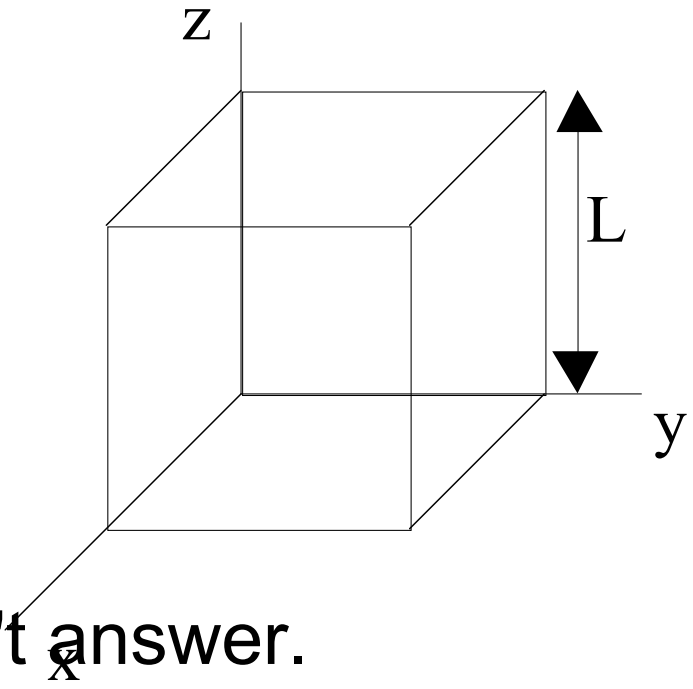
The space in and around a cubical box (edge length L) is filled with a constant uniform electric field, $\vec{E} = E\hat{y}$. What is the TOTAL electric flux $\oint \vec{E} \bullet d\vec{a}$ through this closed surface?



A. Zero
B. EL^2
C. $2EL^2$
D. $6EL^2$
E. We don't know $\rho(r)$, so can't answer.