

34. (a) The flux is still $-750 \text{ N}\cdot\text{m}^2/\text{C}$, since it depends only on the amount of charge enclosed.
(b) We use $\Phi = q/\varepsilon_0$ to obtain the charge q :

$$q = \varepsilon_0 \Phi = \left(8.85 \times 10^{-12} \frac{\text{C}^2}{\text{N}\cdot\text{m}^2} \right) (-750 \text{ N}\cdot\text{m}^2/\text{C}) = -6.64 \times 10^{-10} \text{ C} .$$