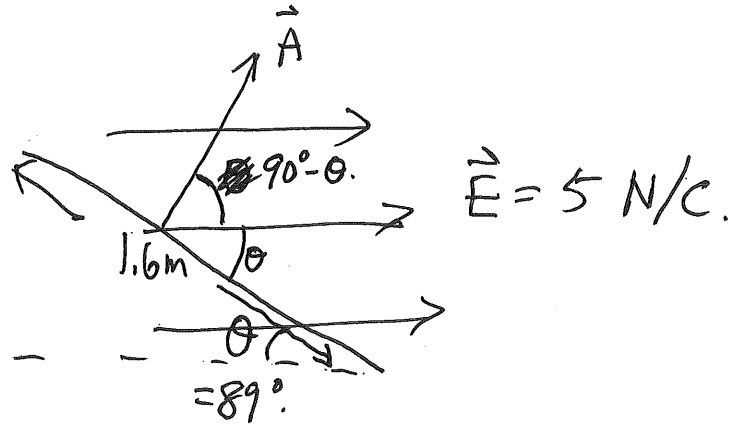


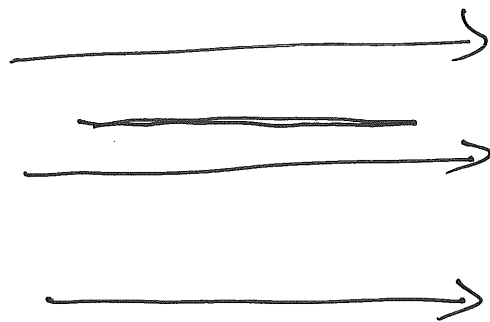
V/m is the same
as N/C .



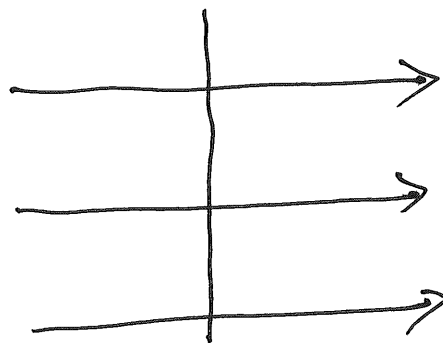
$$\text{Area} = (1.6)(6.9) \text{ m}^2.$$

$$\Phi_E = (5)(1.6)(6.9) \cos(\underbrace{90^\circ - 89^\circ}_{1^\circ}).$$
$$= \dots \text{ Nm}^2/\text{C}.$$

Φ_E is max when $\theta = 90^\circ$.



$$\Phi_E = 0$$



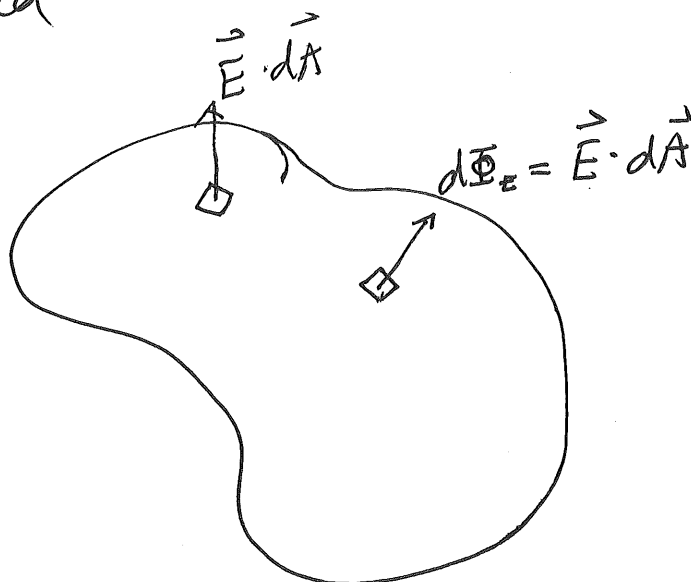
$$\Phi_E \hat{=} \text{max.}$$

Small area

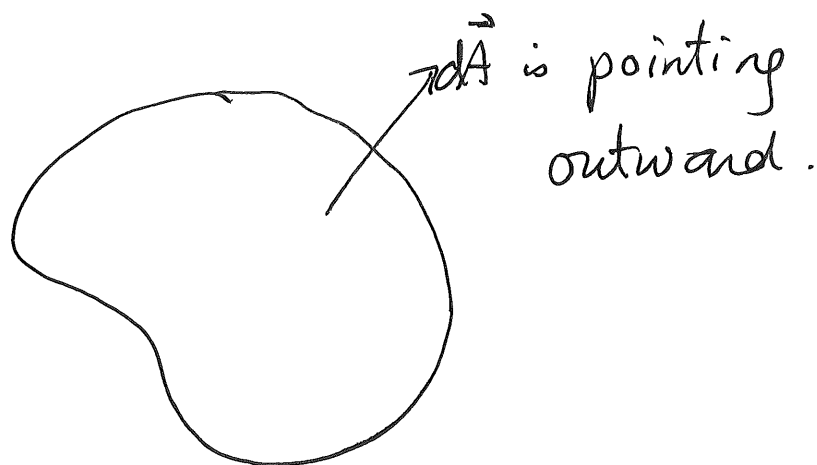


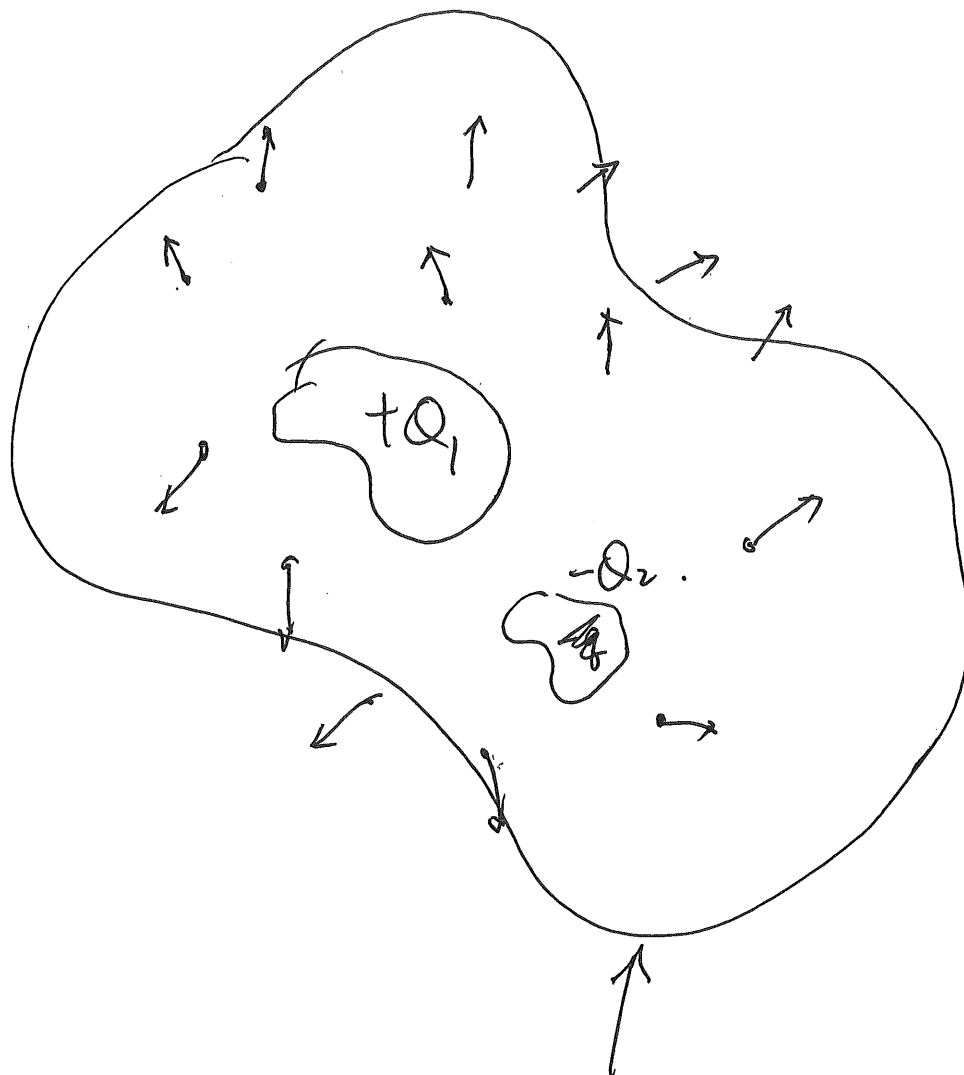
$$d\Phi_E = \vec{E} \cdot d\vec{A}$$

Big area



Closed surface.

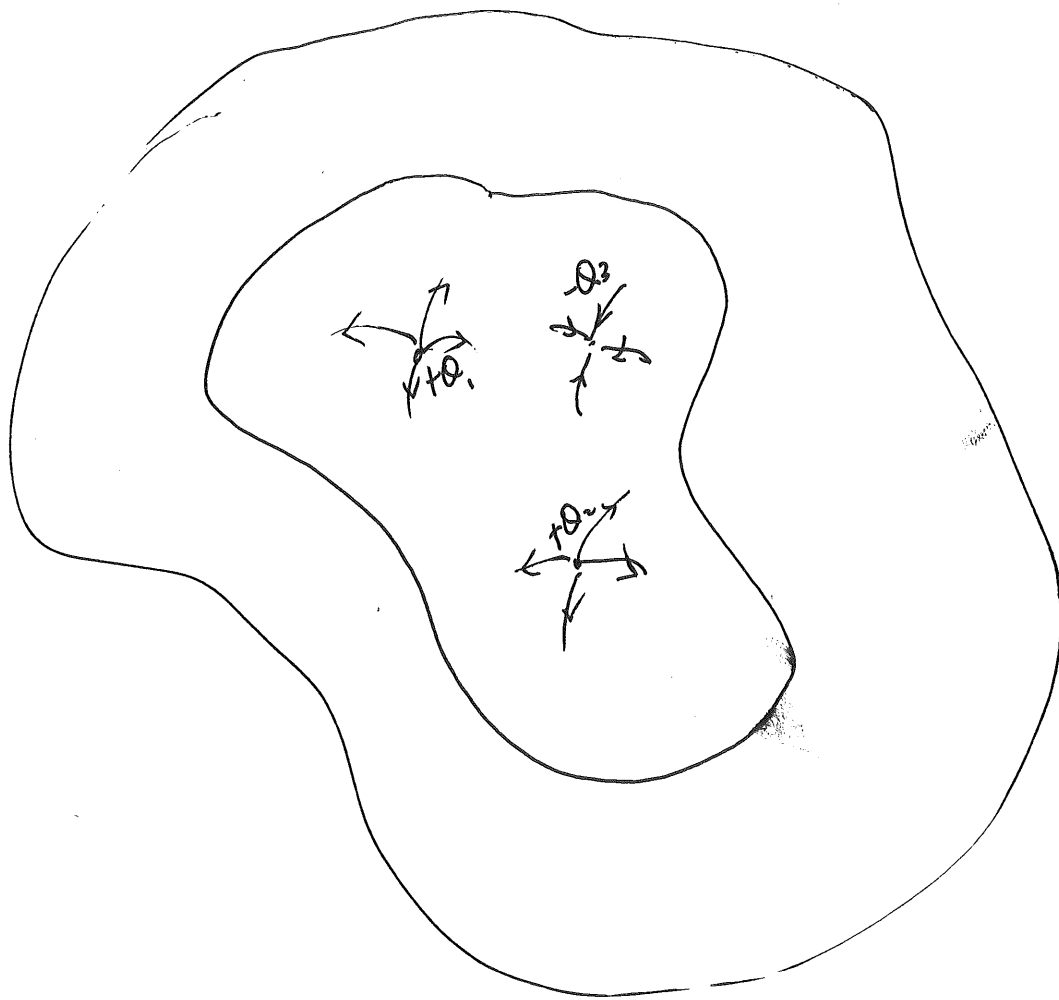




Φ_E = Electric flux
through ANY
closed surface.

Gauss's Law:

$\epsilon_0 \Phi_E$ = Total charge enclosed
by the closed surface.



Reading Assignment:

Sec. 6.3 - 6.5