4-22
a)
$R<a$
$\oint \vec{E} \cdot d \vec{s}=\frac{Q_{e n c}}{\varepsilon}=0$
$\vec{E}=0$
b)
$a<R<b$
$E\left(4 \pi R^{2}\right)=\frac{Q_{1}}{\varepsilon}$
$\vec{E}=\frac{Q_{1}}{\varepsilon 4 \pi R^{2}} \hat{R}$
c)
$R>b$
$E\left(4 \pi R^{2}\right)=\frac{Q_{1}+Q_{1}}{\varepsilon}$
$\vec{E}=\frac{Q_{1}+Q_{2}}{\varepsilon 4 \pi R^{2}} \widehat{R}$

