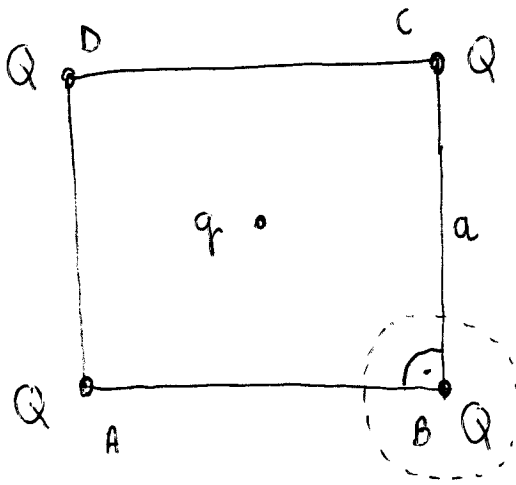


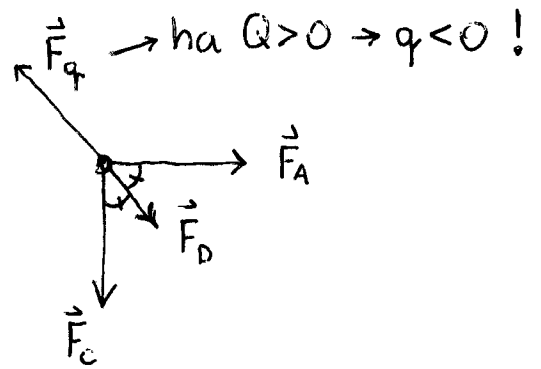
3.)



$q = ?$

$$\vec{F}_c = k \frac{Qq}{r^2} \vec{e}_r$$

pl. $\vec{F}_{Bc} = 0$



$$F_q = F_{ACD} = |\vec{F}_A + \vec{F}_C + \vec{F}_D|$$

$$F_A = F_C = k \frac{Q^2}{a^2}$$

$$F_D = \frac{kQ^2}{2a^2}$$

$$F_q = -k \frac{Qq}{\frac{a^2}{2}}$$

$$F_{ACD} = F_{AC} + F_D = \sqrt{2} F_A + F_D = \sqrt{2} \frac{kQ^2}{a^2} + \frac{kQ^2}{2a^2} = \frac{kQ^2}{a^2} \left(\sqrt{2} + \frac{1}{2} \right)$$

$$k \frac{qQ}{\frac{a^2}{2}} = - \frac{kQ^2}{a^2} \left(\sqrt{2} + \frac{1}{2} \right)$$

$q = \dots$