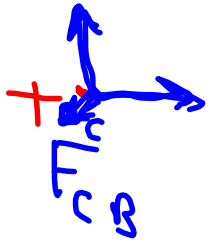
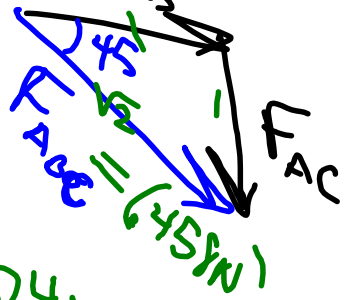


3 +

2 -

$$\sin 45^\circ = \frac{F_{AB}}{F_{ABC}}$$

$$F_{ABC} = \frac{F_{AB}}{\sin 45^\circ}$$



$F_{ABC} = (45N)$

$$F_{AB} = \left(\frac{1}{4\pi\varepsilon_0}\right)\frac{(6\times10^{-6}C)^2}{(1m)^2}$$

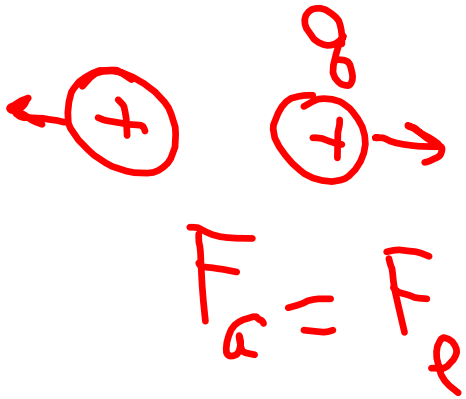
$$= (9E9)(6E-6)^2 = .324N$$

$$F_{AD} = \frac{1}{4\pi\varepsilon_0}\frac{(6\times10^{-6}C)^2}{(\sqrt{2}m)^2} = .162N$$

$F_A = .296N \searrow 45^\circ$

15

$10^{-10}_{m} = \text{Å}$



$F_G = F_e$

$$\frac{F_G}{F_e} = \frac{G\frac{m_1 m_2}{r^2}}{\frac{1}{4\pi\varepsilon_0}\frac{q_1 q_2}{r^2}}$$