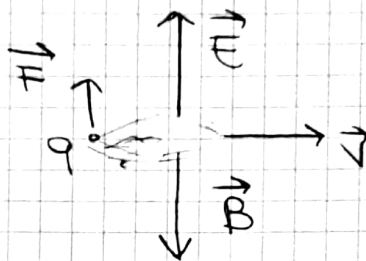


3) $E = 2470 \text{ N/C}$
 $v = 6500 \text{ m/s}$
 $q = +4 \cdot 10^{-12} \text{ C}$
 $\rightarrow F = 1,9 \cdot 10^{-9} \text{ N}$
 $v_q = ?$



$$v = \frac{E}{B} \quad B = \frac{E}{v} = \frac{2470 \text{ N/C}}{6500 \text{ m/s}} = 0,38 \text{ T}$$

$$F_{\text{tot}} = \vec{F}_e + \vec{F}_L \rightarrow \text{se } v = 6500 \Rightarrow F_{\text{tot}} = 0$$

$$F_{\text{tot}q} = q|\vec{E}| + q \cdot v \cdot B \cdot \sin \alpha =$$

$$= 1,9 \cdot 10^{-9} \text{ N}$$

$$q v B \sin \alpha = F_{\text{tot}q} - q|\vec{E}|$$

$$v = \frac{F_{\text{tot}q} - F_e}{q B \sin \alpha} = \frac{(1,9 \cdot 10^{-9}) \text{ N} - (4 \cdot 10^{-12} \text{ C})(2470) \text{ N/C}}{(4 \cdot 10^{-12}) \text{ C} (0,38) \text{ T} \sin 90^\circ}$$

$$= -5250$$

$$\downarrow$$

$$|\vec{v}| = 5250$$

verso \rightarrow anzitutto verso il basso
 poiché prevale la
 forza elettrica

4)