Grant Parking

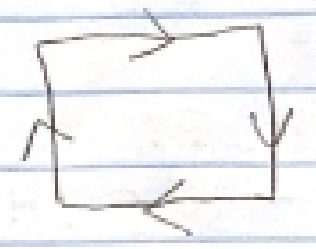
Discussion 10/13 6a

$\vec{F} = q\vec{v} \times \vec{B}$ (for moving, charged particles)

(current (electric))

$\vec{F} = I\vec{l} \times \vec{B}$

#1) $\vec{B} = (A/y)\hat{k}$



$y = l + a$

$\vec{F}_{top} = Ia\frac{A}{l+a} i \times \hat{k}$ $\vec{B} = \frac{A}{l+a}\hat{k}$

$= -Ia\frac{A}{l+a}\hat{j}$

$\vec{F}_{bot} = Ia\frac{A}{l}(-\hat{i} \times \hat{k})$

$Ia\frac{A}{l}\hat{j}$