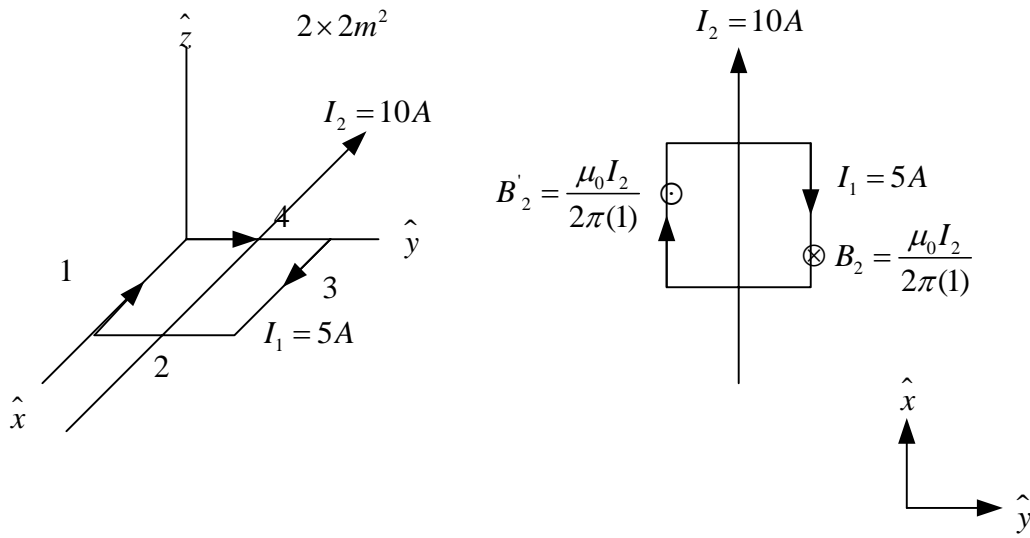


5-19



$$F = I_1 \vec{L} \times \vec{B}_2 = \frac{I_1 L \mu_0 I_2}{2\pi} \hat{y} = \frac{(5)(2)\mu_0(10)}{2\pi} = 2 \times 10^{-5} \hat{y}$$

both $\vec{F} \rightarrow \hat{y}$

$$\Rightarrow \text{total force } \vec{F} = 4 \times 10^{-5} \hat{y} (N)$$