

Loop 1



Loop 2



Loop 3



$$\int \vec{B} \cdot d\vec{s} \text{ along left edge}$$

$$+ 2T \cdot m$$

$$+ 2T \cdot m$$

$$- 2T \cdot m$$

$$\int \vec{B} \cdot d\vec{s} \text{ along top}$$



$$\int \vec{B} \cdot d\vec{s} \text{ along right edge}$$

$$- 2T \cdot m$$

$$+ 2T \cdot m$$

$$+ 2T \cdot m$$

$$\int \vec{B} \cdot d\vec{s} \text{ along bottom}$$



$$+ 4T \cdot m$$



The line integral *around* the loop is simply the sum of these four separate integrals:

$$\oint \vec{B} \cdot d\vec{s} \text{ around the loop}$$