

Solution to Problem 7.13

* $d\vec{a} = \hat{z} dx dy$

* $\int d\vec{a} \cdot \vec{B} = \int_0^a dx \int_0^a dy ky^3 t^2 = \frac{1}{4} ka^5 t^2 \equiv \Phi(t)$

* $\mathcal{E} = -\frac{\partial \Phi}{\partial t} = -\frac{1}{2} ka^5 t$

-directed counter-clockwise

