

101. (a) At $t = 0.50$ s and $t = 1.5$ s, the magnetic field is decreasing at a rate of $3/2$ mT/s, leading to

$$i = \frac{|\mathcal{E}|}{R} = \frac{A|dB/dt|}{R} = \frac{(3.0)(3/2)}{9.0} = 0.50 \text{ mA}$$

with a counterclockwise sense (by Lenz's law).

- (b) See the results of part (a).

- (c) and (d) For $t > 2.0$ s, there is no change in flux and therefore no induced current.