

3. (a)

$$|\mathcal{E}| = \left| \frac{d\Phi_B}{dt} \right| = \frac{d}{dt}(6.0t^2 + 7.0t) = 12t + 7.0 = 12(2.0) + 7.0 = 31 \text{ mV} .$$

(b) Appealing to Lenz's law (especially Fig. 31-5(a)) we see that the current flow in the loop is clockwise. Thus, the current is from right to left through R .