

41. Since $\mathcal{E} = -L(di/dt)$, we may obtain the desired induced emf by setting

$$\frac{di}{dt} = -\frac{\mathcal{E}}{L} = -\frac{60 \text{ V}}{12 \text{ H}} = -5.0 \text{ A/s} .$$

We might, for example, uniformly reduce the current from 2.0 A to zero in 40 ms.