

70. We use  $\mathcal{E}_2 = -M \, di_1/dt \approx M|\Delta i/\Delta t|$  to find  $M$ :

$$M = \left| \frac{\mathcal{E}}{\Delta i_1/\Delta t} \right| = \frac{30 \times 10^3 \, \text{V}}{6.0 \, \text{A}/(2.5 \times 10^{-3} \, \text{s})} = 13 \, \text{H} .$$