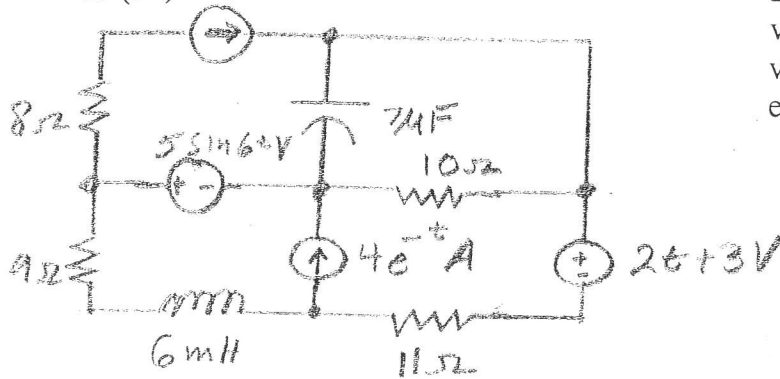
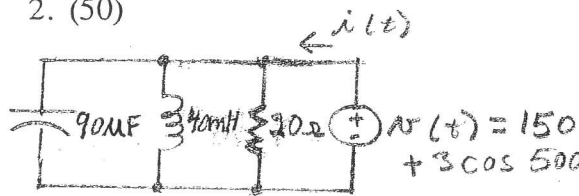


1. (50)  $12\text{ A}$



Label the diagram with currents and voltages. Write equations to solve for the voltage across and the current through each element. Do not solve.

2. (50)



Find  $i'(t)$ . At  $t=0$ , the current in the inductor is 8A downward.

Simplify your answer.

$$v(t) = 150 + 3\cos 500t + 170e^{-600t} \text{ V}$$