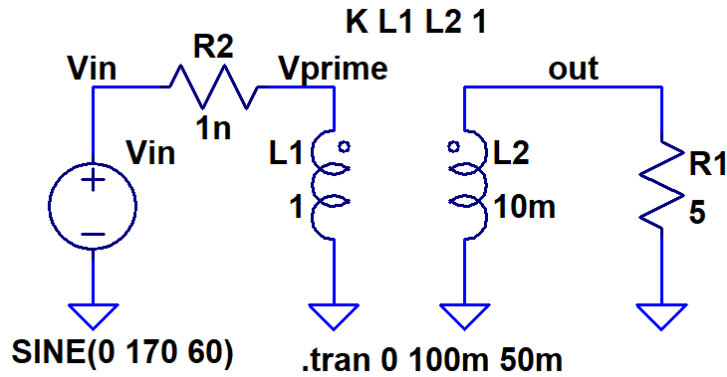


Closed book and notes.

Show your work for credit and place a box around your answer.

- Find the current flowing in V_{in} (write an equation in the time domain) and the voltage across $R1$. Neglect the magnetizing current in the primary of the transformer. (5 points)



$$\frac{V_1}{V_2} = \frac{N_1}{N_2} = \sqrt{\frac{L_1}{L_2}} = \frac{1}{N}$$