SHOW ALL WORK!!!!
REPORT ALL NUMBERS TO THREE SIGNIFICANT FIGURES!
Use the conversion constants and data given on the front page.

(a) As drawn, with no simplification, how many TOTAL junctions are there in this circuit?

(b) How many independent junction equations can be written?

(c) How many mathematically independent loop equations are needed for a complete solution of this circuit?

(d) Write the junction equation for (A), using the current labels given.

(e) Write the loop equations for loop (L), going around the loop in a clockwise sense.

\( I_{10} - I_5 - I_4 - I_3 = 0 \)  
\( \Phi_2 - I_3 R_3 - \Phi_5 - I_2 R_2 - I_7 R_7 = 0 \)