Mongo Circuit 2

To receive extra credit, submit your personal (unique) solution by lecture on the due date.

1) Show a series of diagrams that show the process of finding the equivalent resistance for the entire circuit. Calculate that resistance.
2) Calculate the following quantities below. Clearly show your equations and logic for credit.

\[ I_{\text{Battery}} \]
\[ I_1 \]
\[ P_1 \]
\[ I_8 \]
\[ I_9 \]
\[ V_2 \]
\[ P_2 \]
\[ I_3 \]
\[ V_4 \]
\[ I_4 \]
\[ I_5 \]
\[ V_6 \]
\[ P_7 \]

3) Show that charge is conserved at junction A.

4) Show that energy is conserved in the loop containing the battery, \( R_8 \), \( R_2 \), \& \( R_1 \)