Problem Specification

Reduce the boolean functions and implement the reduced circuit in Logisim using simple gates only. You must use the 7400-series IC chips: IC 74x04, IC 74x08, and IC 74x32 corresponding to the logic gates.

Make sure to use minimum no. of logic gates. Show the steps of simplification as well.
        a) $AB + A(B + C) + B(B + C)$
        b) $A'B + BC' + BC + AB'C'$
        c) $(X + Y' + Z')(X + Y' + Z)(X + Y + Z')$

Submission

Deadline: 11:55 PM, Sunday, December 3, 2023
Format:
- You must submit the necessary Logisim circuit files (.circ).
- You must also submit a report (PDF) showing the simplification steps for all three subproblems.
- Create a folder using your roll (2105XYZ). Put all necessary files in the folder.
- Create a zip of the folder (2105XYZ.zip) and submit it within the deadline.