Question: Convert the following Boolean Logic expressions into equivalent Majority Gate Logic by using AND/OR mapping method demonstrated previously making use of the AND and OR forms as indicated above.

Use the method to first perform a direct AND/OR mapping of the expression. Then see if the expression can be further reduced to a simpler logic form and perform an AND OR mapping of the reduced expression.

Example: \( n = x_1x_2 + x_2x_3 \) can be further reduced to \( n = (x_1 + x_3)x_2 \). Similarly, for all the equations below perform the AND/OR mapping for the original expression and the reduced form of the expression.

(a) \( n = (x_1 + x_2)(x_1x_2) \)

(b) \( n = \overline{x_1}x_3 + x_2\overline{x_3} \)