

LOGICAL EXPRESSIONS (Lithuania)

Logical expressions are considered equal only when they return equal values for all possible sets of variable values. So we need to build up result tables for all the expressions as well as for the expressions $\#Rx$, $Rx\&Ry$, and $Rx+Ry$. We have 5 expressions so there are fewer than 32 possible combinations of the basic expressions. 32 is not much for a computer, so it is possible to check all the combinations and find the best one.

This problem may contain more than one correct answer.