

Activity!

The Replacement Method



Steps:

1. Copy the formula, substituting the letter constants with the relevant truth-values.
2. Calculate the operators with the smallest scopes.
3. Calculate the main
_____ operator.

Use the replacement method to calculate the truth-values of the following:

(Key: R and L are true; M and O are false.)

a. $\sim[(O \vee M) \supset (R \equiv M)]$

b. $[(R \& L) \vee (R \& M)] \& \sim(L \& M)$

c. $(([R \equiv L] \& [M \equiv O]) \vee [M \supset R]) \supset O$