CS270 Programming Assignment 2
Verification of DeMorgan's Laws

Goals

For this assignment you will write a C program to verify DeMorgan's Laws:

$$\overline{X + Y} = X.Y \qquad \overline{X.Y} = X + Y$$

The Assignment:

The program should prompt: "Verify first law or second?". If the response is "first", the program that generates a truth table with columns

X   Y   !(!X || !Y)   X&&Y

The values should be generated using C computations using the values of X and Y (they cannot be hard coded). If the response is "second", it should generate a truth table with columns

X   Y   !(!X&&!Y)   X||Y

The four rows should be generated with all possible combinations of binary values of X and Y just like truth tables we have seen.

If the response is "exit", the program quits. Otherwise the program prompts again for the next input.

Testing

Test the program by running it for both cases. At the bottom of the program include the response you obtained in form of comments.

Submission

Submit the program using RAMCT. The program should consist of a single file.