Lab session Software Testing, week 3

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Assignment 3, Exercise 6

In this report we discuss the testing of the CNF program implementation from last week using a random formula generator, already presented in the course slides from Week3.

The code is:

cnfTest i = testForms i (\form -> equiv form (cnf form))

The cnfTest function calls the testForms function which is imported from the Techniques module. The testForms function takes an argument defined as a number which gives the number of functions to generate and function that returns Boolean, implemented with lambda abstraction. It takes a formula as an input and calls the equiv function in order to check if both the given formula and the cnf are equivalent.

We tested the program for few input values, and it passed for all the cases. Two of them are represented in the table below.

Test Results:

cnfTest 8 "pass on:13" "pass on:7" "pass on:6" "pass on:20" "pass on:19" "pass on:7" "pass on:19" "pass on:13" "8 tests passed"	cnfTest 15 "pass on:11" "pass on:5" "pass on:21" "pass on:-9" "pass on:12" "pass on:-10" "pass on:18" "pass on:+(6 8)" "pass on:-19" "pass on:5" "pass on:19" "pass on:-5" "pass on:+(5 17)" "pass on:+(19 6 19 3)" "pass on:*(20)" "15 tests passed"