Homework 5;

November 22, 2019

Problem 1 (score: 5/10)

(a) OK

(b) not ok; function can be realized as

$$(A + B(D + C))(FG + E)$$

12 gates

Problem 2 (score: 5/10)[1]

Problem 8 (score: 5/10)[2]

(a) NOT ok

(b) ok

Problem 12 (score: 0/10)[3]

NOT ok. The first function can be implemented as

$$(b' + d)(a + c + d)(a + b + c)$$

with less gates and inputs as your version. Similar for other functions.

Also, your circuit has more than 9 gates.

Problem 42 (score: 0/10)[4]

[1] similar problems: ff

enumerate[(a)]

NOT ok. The function can be implemented as

$$a'bc + a'bd' + ab'c' + ab'd'$$

this has the same number of gates, but less inputs than your version

ok

[2] similar problems:

[3] similar problems:

[4] similar problems: