

FPGA LAB - Assignment 1

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Download all c codes from

https://github.com/PeriPriyanka/FPGA_5811/Assignment1

and latex-tikz codes from

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1 PROBLEM

(2015-1-Q.6(a)) Verify the following boolean law:

$$U' + V = U'V' + U'V + UV \quad (1.0.1)$$

2 SOLUTION

Consider the RHS of the boolean expression given

$$U'V' + U'V + UV \quad (2.0.1)$$

$$U'(V' + V) + UV \quad (2.0.2)$$

Since $V' + V = 1$, equation (2.0.2) can be written as,

$$U' + UV \quad (2.0.3)$$

From the Distributive property of boolean laws,

$$X + X'Y = X + Y \quad (2.0.4)$$

Therefore, equation (2.0.3) can be written as,

$$U' + V \quad (2.0.5)$$

LHS = RHS, therefore, $U' + V = U'V' + U'V + UV$.