**Chapter 1, Verification Guidelines homework solution**

**Test Plan**

1. Check reset value of C
2. Apply all permutations of max pos, max neg, and 0 to the add and subtract opcodes
3. Apply 0’s and all 1’s to A for bitwise invert input A opcode. Set B to non-all 0 and non-all 1.
4. Apply 0, all 1’s, and walking 1’s to B for ReductionOR\_B opcode. Set A to a value that will yield the opposite result.
5. Set the operands and walk through the opcodes
6. Apply inputs so that C is all 1. Reset

**Code:**

See Chap\_1\_Verification\_Guidelines/homework\_solution for the code.

**Copy of Transcript Window**

# // QuestaSim-64 6.5a Mar 27 2009 Linux 2.6.27.21-0.1-default

# //

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# //

# do run.do

# vsim work.ALU\_4\_bit\_tb

# Loading sv\_std.std

# Refreshing /home/UFP/gtumbush/4280/HW1/work.ALU\_4\_bit\_tb

# Loading work.ALU\_4\_bit\_tb

# Refreshing /home/UFP/gtumbush/4280/HW1/work.ALU\_4\_bit

# Loading work.ALU\_4\_bit

# .main\_pane.wave.interior.cs.body.pw.wf

# 4600: At end of test error count is 0