

## 4COM2003.circ-T01L1e04

You are given a design board with three input pins A, B and C, and one output pin R.

Build a *gate* circuit whose output R behaves according to the following truth table:

A	B	C	R
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

Use the Logisim template `4COM2003.circ-T01L1e04.circ` attached as a starting point for your circuit.

The tester will accept any *correct* solution, but we suggest that you use the **sum of minterms approach**. Transistors and pull resistors are not allowed in solutions to gate exercises.

### How to submit your work

**Do not move any of the input and output pins**, since Logisim connects the test circuit to them based on their position rather than name (which is quite unfortunate, but cannot be helped)

Test the circuit by pressing on input pins with the hand control and recording your observations. When you are certain that the circuit works, reply to this message with the circuit file of your solution (and only the circuit file of your solution) in attachment. Do not change the subject line; make sure that the ticket number in it (i.e. the part that begins with \*\*) is intact.