

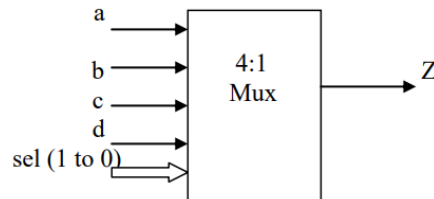
CS3650 - Homework # 2

Exercise

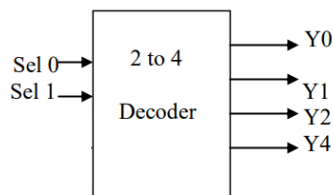
Design the following circuits by:

- Write the truth table of the circuit
- Wire the Boolean expression of the circuit in standard form
- Write VHDL code that represents the circuit

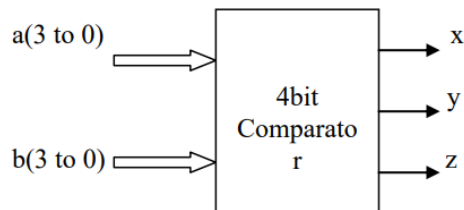
4-input multiplexer.



2x4 decoder.



4-bit comparator



The inputs a and b are vectors of 4 bits: if $a > b$ then $x = 1$; if $a = b$ then $y = 1$; if $a < b$ then $z = 1$

Report

A report that sums up what has been done. For each part of the exercise, you must hand in: truth table, Boolean expression, and VHDL code