COCO 2610 Homework 7

Due date: March 5, in studio

Problems:

1. Write a VHDL dataflow program to implement a 4 inputs, 2-bit multiplexer, draw the logical symbol of the multiplexer, and clearly label each input and output of the multiplexer using the variable names defined in your program.

2. Show how to implement a full subtracter with a full adder. Algebraically prove your implementation and draw the logic symbol of the full subtracter in terms of a full adder.

3. Implement Table X 5.85 (page 465) with a single 74 × 139 chip.