Homework 4

7.8. (Section 7.3) Show how to implement on a 3-input 2-output lookup table the function $F(a, b, c) = a + bc$.

7.9. (Section 7.3) Show how to implement on two 3-input 2-output lookup tables the function $F(a, b, c, d) = ab + cd$. Assume you can connect the lookup tables in a custom manner (i.e., do not use a switch matrix, just directly connect your wires).

7.10. (Section 7.3) Implement a 2-bit comparator that compares two 2-bit numbers and has three outputs indicating greater-than, less-than, and equal-to, using any number of 3-input 2-output lookup tables and custom connections among the lookup tables.