HW #3

CSc 137, Harvey

Adder/Mux (12 pts)

1. Design a Single cell -1 bit Carry propagate (Ripple Carry Adder) full adder. (6 pts)
   1. Generate the truth table
   2. Using K-map, determine the logical expression for Carry out (C-out) and Sum (S)
   3. Based on the logical expression, create the schematic diagram for full adder
2. Design a 1 bit, 2 to 1 multiplexer (Mux). Outputs Y when S = 0; X when S = 1. (6 pts)
   1. Generate the truth table
   2. Using K-map, determine the logical expression for output
   3. Based on the logical expression, create the schematic diagram for Mux