

ECE 130 HW#10, Due Tuesday, April 12

1. Implement the canonical expression  $f(x,y,z) = \Sigma(1,3,5,6,7)$  using only ONE 74LS151 multiplexer and as many 2-input NOR gates as you like. Build your circuit using simulation software and verify that it works correctly.

2. Implement a 32:1 multiplexer with active-low enable using only ONE 74LS151 multiplexer and any glue logic (AND, OR, NOT, etc.) that you desire. Build your circuit using simulation software. NOTE: you should not try to test this circuit with all  $2^{32}$  inputs!!!