Homework #1 ECE 461

PLC: Combinational Logic. Due Monday, August 29th

Write a program which displays how many buttons are pressed (input 0 to 3).

# Buttons Pressed	DO-0 (red)	DO-1 (yellow)	DO-2 (green)	DO-3 (blue)
0	0	0	0	0
1	1	0	0	0
2	1	1	0	0
3	1	1	1	0
4	1	1	1	1

1) Give a Karnough map for each output (red / yellow / green / blue)

2) Determine the combinational logic for each output

3) Write a ladder-logic program for this.