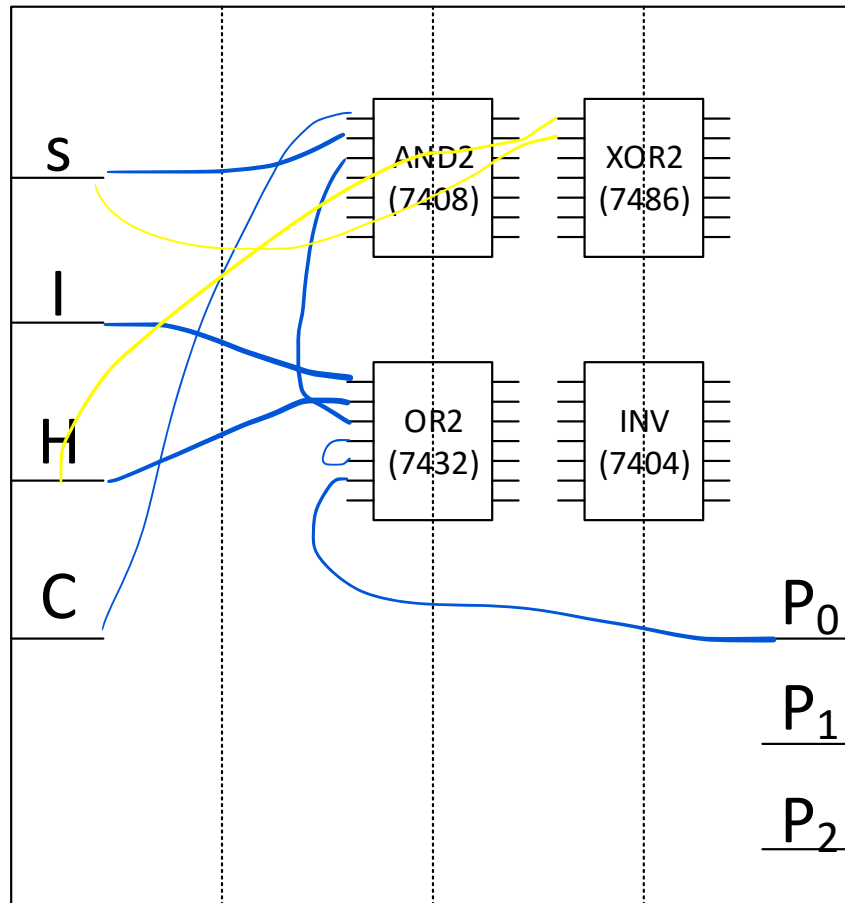


# Demo of Profit Calculator

step1: place all required chips on your bread board

step2: connect VCC & GND for all chips

step3: Define your input pins S/I/H/C using DIP switch or direct jumper wires



step4: implement output P<sub>0</sub>, and display through LED,

$$P_0 = I + H + CS$$

and debug it based on truth table (test at least test five cases)

	S	I	H	C	P <sub>2</sub>	P <sub>1</sub>	P <sub>0</sub>	
NONE	0	0	0	0	0	0	0	0
H	0	0	1	0	0	1	1	3
C	0	0	0	1	1	0	0	4
S	1	0	0	0	0	1	0	2
I	0	1	0	0	0	0	1	1
HC	0	0	1	1	1	1	1	7
HS	1	0	1	0	1	0	1	5
HI	0	1	1	0	0	1	1	3
CS	1	0	0	1	1	1	1	7
CI	0	1	0	1	0	1	1	3
SI	1	1	0	0	0	1	1	3

step5: implement output P1, and display through LED, debug it based on truth table (test at least test five cases)

$$P_1 = H \oplus S + CI$$

step6: implement output P2, and display through LED, debug it based on truth table (test at least test five cases)

$$P_2 = \bar{I}C + HS$$

step7: use truth table to make sure your logic is completely right

step8: connect output P2/P1/P0 to 7-segment display chip

step9: verify your binary results of LEDs are consistent with 7-segment display.