

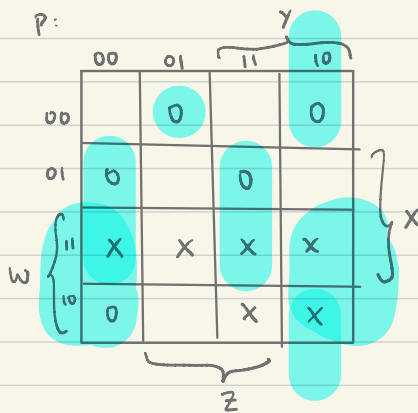
CS2100 - Tutorial 10 - K-Maps II & Combination Circuits Week 12

1.

X	Y	Z	W	P
0	0	0	0	1
0	0	0	1	0
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0

X	Y	Z	W	P
1	0	0	0	0
1	0	0	1	1
1	0	1	0	X
1	0	1	1	X
1	1	0	0	X
1	1	0	1	X
1	1	1	0	X
1	1	1	1	X

(a).

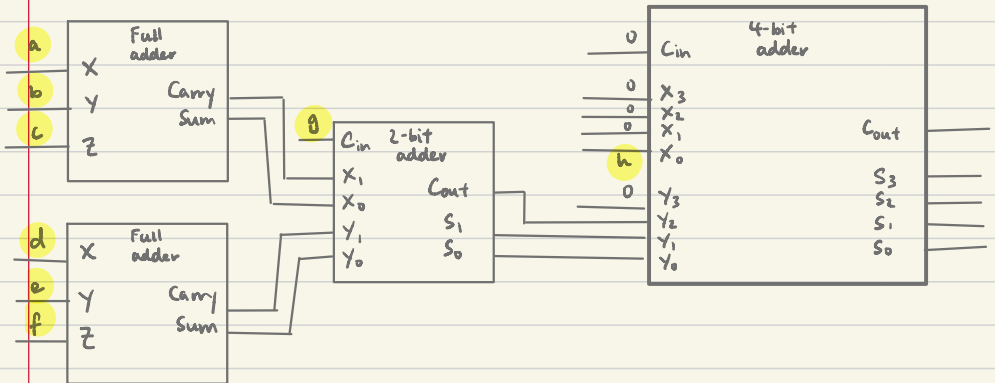


$$\begin{aligned}
 P &= (W+Z) \cdot (X+Y+Z) \\
 &\cdot (X+Y'+Z') \cdot (X'+Y+Z') \\
 &\cdot (W'+X'+Y'+Z)
 \end{aligned}$$

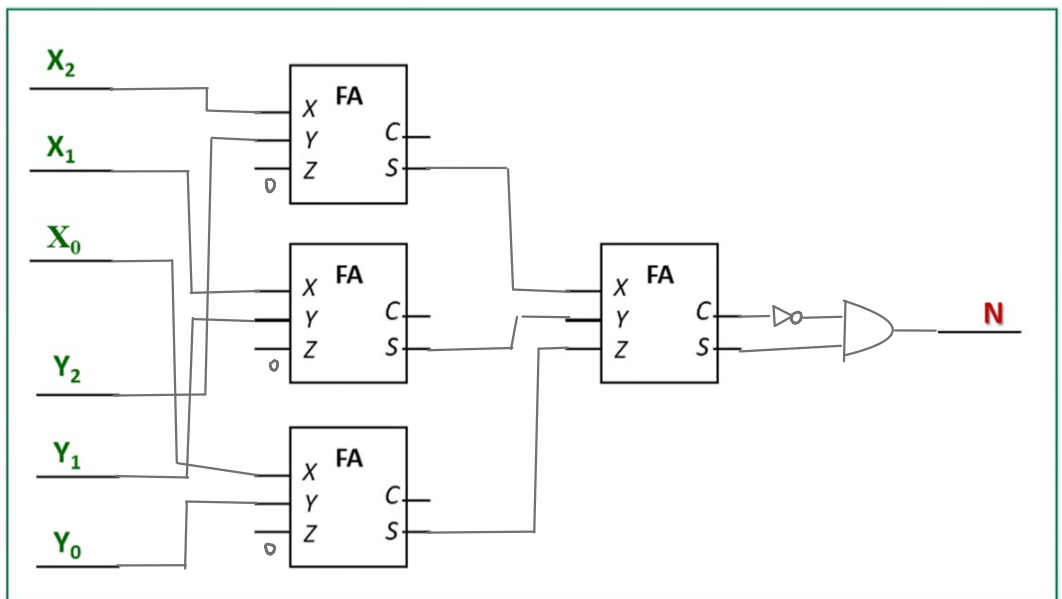
(b).

$$\begin{aligned}
 \text{Yes. } P &= \sum \text{ minterms} \\
 &= \prod \text{ maxterms}
 \end{aligned}$$

2. Arithmetic Circuit



3. AY1516S2 Midterm, Combination Circuit



4. Problem Solving with Adder

