Q Given X & Y which are And & Or of two no's Lets say A & B

Find ① A + B [Regular Addition]

② A Xor B

Sol:→ ①

A	B	A&B	A|B	A+B
0	0	0	0	0
0	1	0	1	1
1	0	0	1	1
1	1	1	1	1 (carry)

for A+B those are same bits as A,B

See $\boxed{(A\&B) + (A|B) = A+B}$

A&B	A|B	
0	0	0
0	1	1
1	1	1 (carry)

No case of A&B → 1 & A|B → 0 Never

So Remember $A+B = (A\&B) + (A|B)$

② A Xor B

See A&B → 0 and A|B → 0 represents 0,0 case

A&B → 0 and A|B → 1 represents (0,1) (1,0) case

A&B → 1 and A|B → 1 represents (1,1) case

So A∩B is 0 when same A & B

$(A\&B) - (A|B)$ or $(A|B) - (A\&B)$ can be sol n

But for A&B → 0 And A|B → 1 $(A\&B) - (A|B) < 0$

So $(A \cap B) = (A|B) - (A\&B)$

will be used in Programming