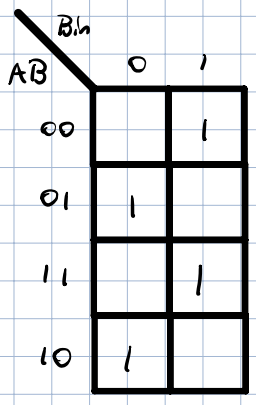
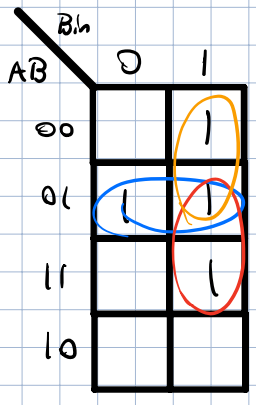
Shivnesh Madaan, SM78679
Full subtractor module:

A	B	B_{in}	D	B_{out}
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	0	1
1	0	0	1	0
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1





$D = A'B'B_{in} + A'BB_{in}' + AB'B_{in}' + ABB_{in}$

$= A'(B'B_{in} + BB_{in}') + A(BB_{in} + B'B_{in}')$

$= A'(B_{in} \oplus B) + A(B \oplus B_{in})'$

$= A \oplus (B_{in} \oplus B)$

$= A \oplus B_{in} \oplus B$

$B_{out} = A'BB_{in}' + BB_{in} + A'B_{in}$

$= A'(BB_{in}' + B_{in}) + BB_{in}$

$= A'(B + B_{in}) + BB_{in}$

$= A'B + AB_{in} + BB_{in}$