A	B	C	F	MINTERMS	MAXTERMS
0	0	0	0		$A+B+C$
0	0	1	0		$A+B+\bar{C}$
0	1	0	1	$\bar{A}B\bar{C}$	
0	1	1	1	$\bar{A}BC$	
1	0	0	0		$\bar{A}+B+C$
1	0	1	1	$A\bar{B}C$	
1	1	0	1	$AB\bar{C}$	
1	1	1	0		$\bar{A}+\bar{B}+\bar{C}$

$\bar{A} = A'$

$F = \bar{A}B\bar{C} + \bar{A}BC + A\bar{B}C + AB\bar{C}$

$F = (A+B+C)(A+B+\bar{C})(\bar{A}+B+C)(\bar{A}+\bar{B}+\bar{C})$

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A	B	C	F	MINTERM	MAXTERM
0	0	0	1	$\bar{A}\bar{B}\bar{C}$	
0	0	1	1	$\bar{A}\bar{B}C$	
0	1	0	0		$A+\bar{B}+C$
0	1	1	0		$A+\bar{B}+\bar{C}$
1	0	0	0		$\bar{A}+B+C$
1	0	1	1	$A\bar{B}C$	
1	1	0	0		$\bar{A}+\bar{B}+C$
1	1	1	1	ABC	

$F = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + A\bar{B}C + ABC$

$F = (A+\bar{B}+C)(A+\bar{B}+\bar{C})(\bar{A}+B+C)(\bar{A}+\bar{B}+C)$

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$F = \overline{B} + A\overline{C} + \overline{A}BC$

A	B	C	F	
0	0	0	1	
0	0	1	1	
0	1	0	0	
0	1	1	1	
1	0	0	1	$A\overline{B}\overline{C}$
1	0	1	1	
1	1	0	1	$AB\overline{C}$
1	1	1	0	

$A\overline{B}\overline{C} + AB\overline{C}$

$A\overline{C}(\overline{B}+B)$

$=$

$A\overline{C} \cdot 1 = A\overline{C}$

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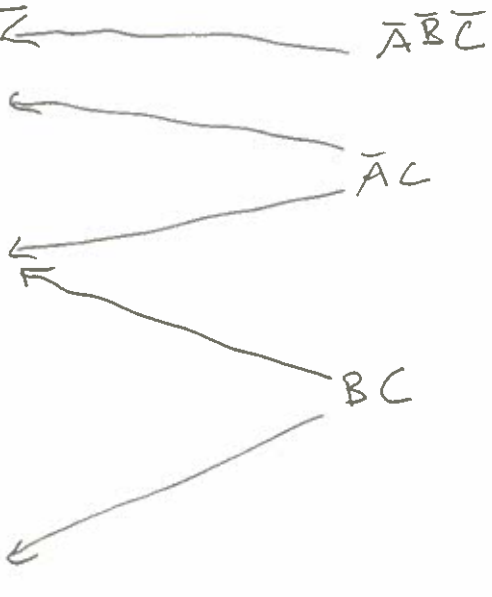
$$F = \bar{A}\,\bar{B}\,\bar{C} + \bar{A}C + BC$$

A	B	C	F
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	1



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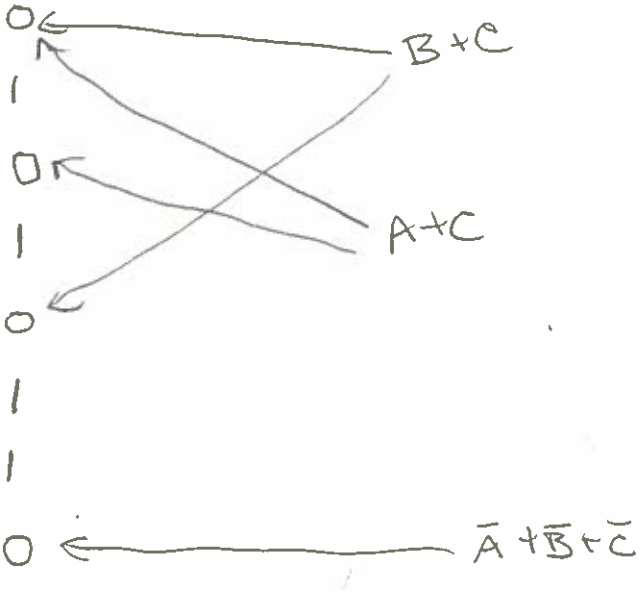
$$F = (\bar{A}+\bar{B}+\bar{C})(B+C)(A+C)$$

A	B	C	F
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	0



$\bar{A}+\bar{B}+\bar{C}$

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$F = B(\bar{A} + C)$

A	B	C	F
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	1

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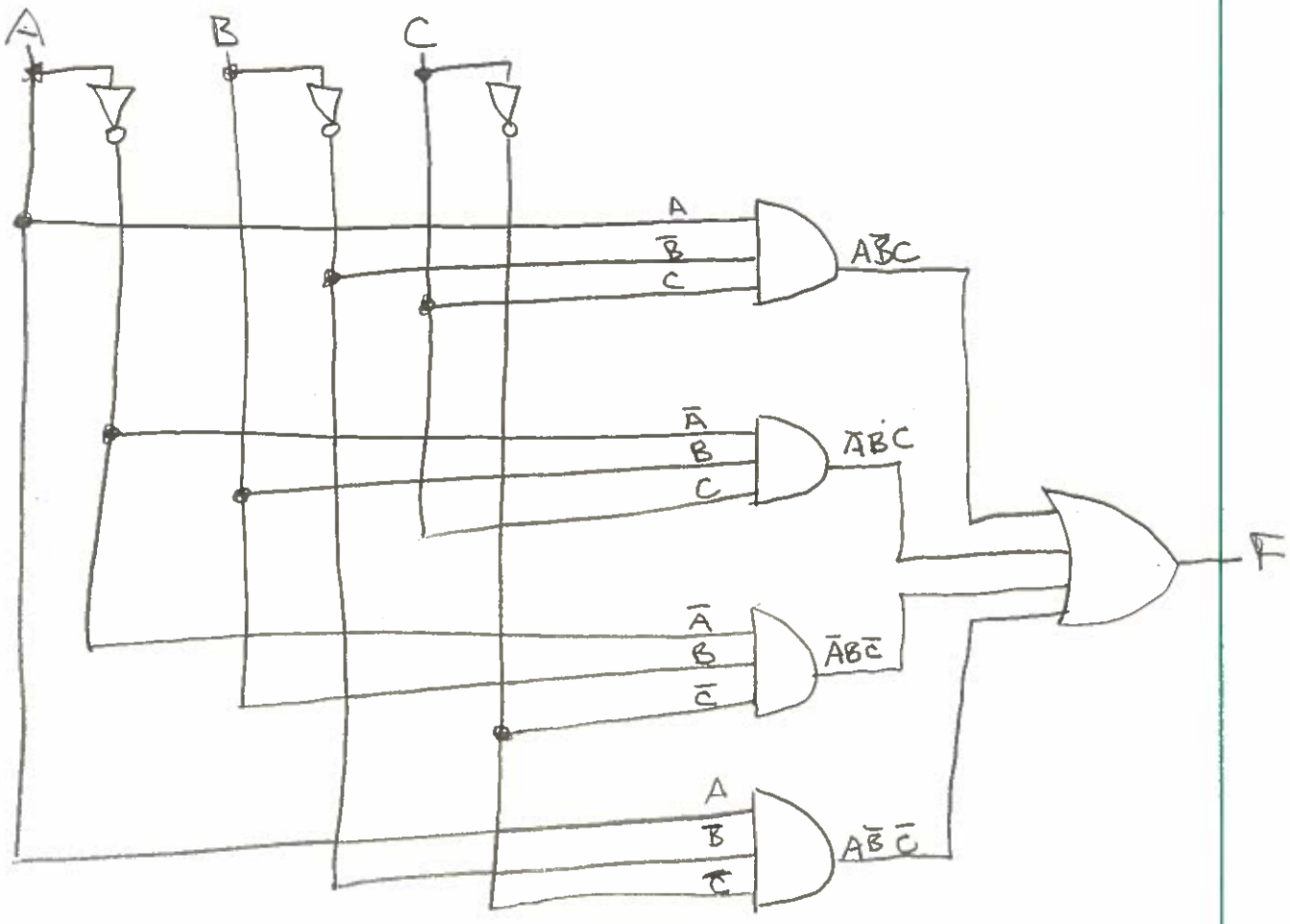

$F = A\bar{B}C + \bar{A}BC + \bar{A}B\bar{C} + A\bar{B}\bar{C}$

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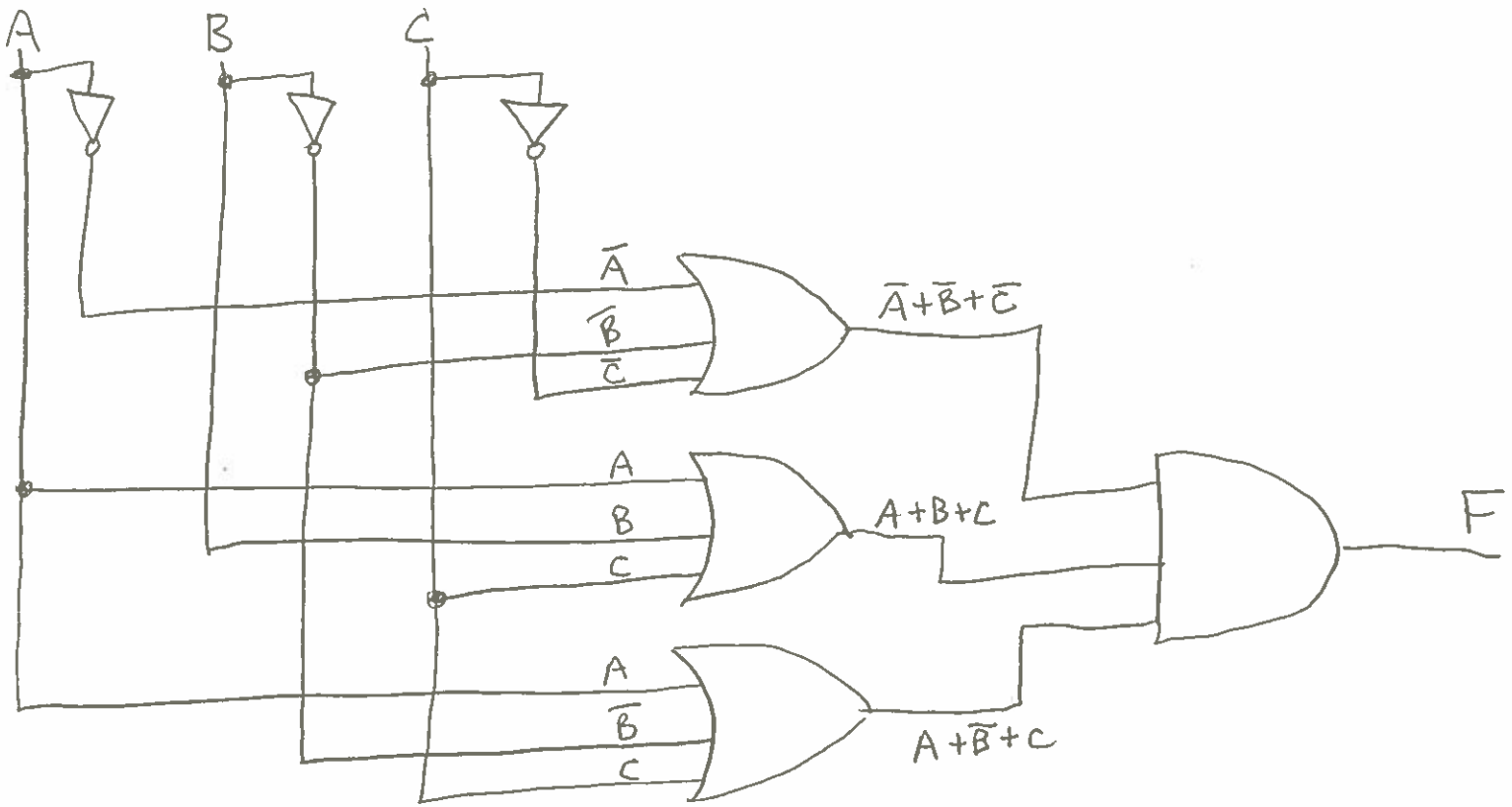

$$F = (\bar{A}+\bar{B}+\bar{C})(A+B+C)(A+\bar{B}+C)$$

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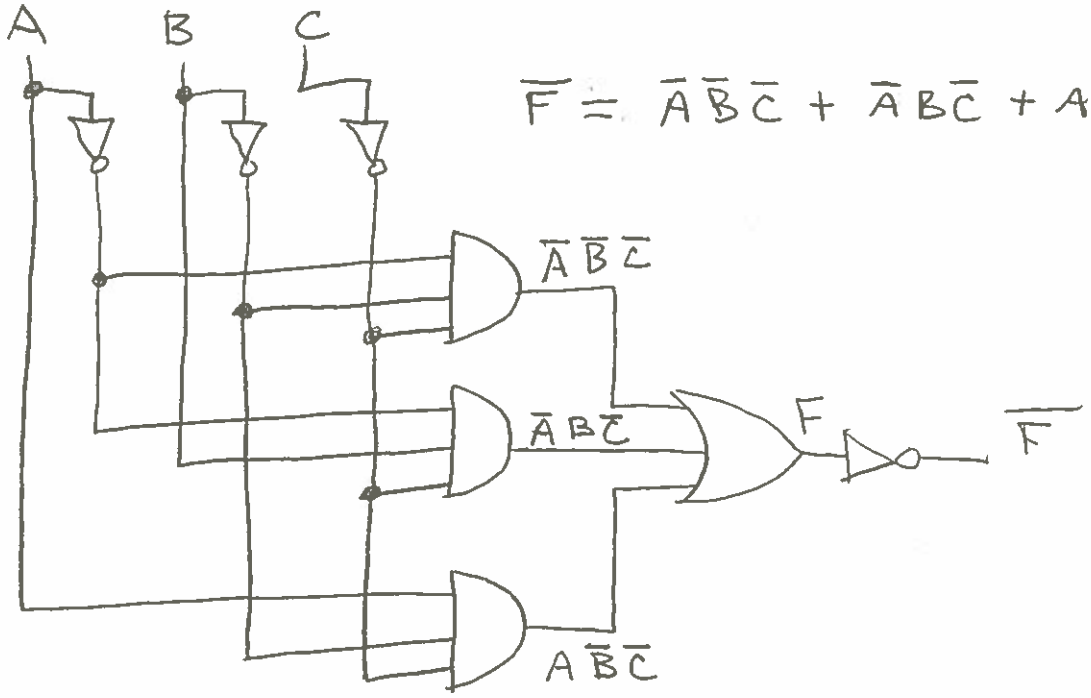
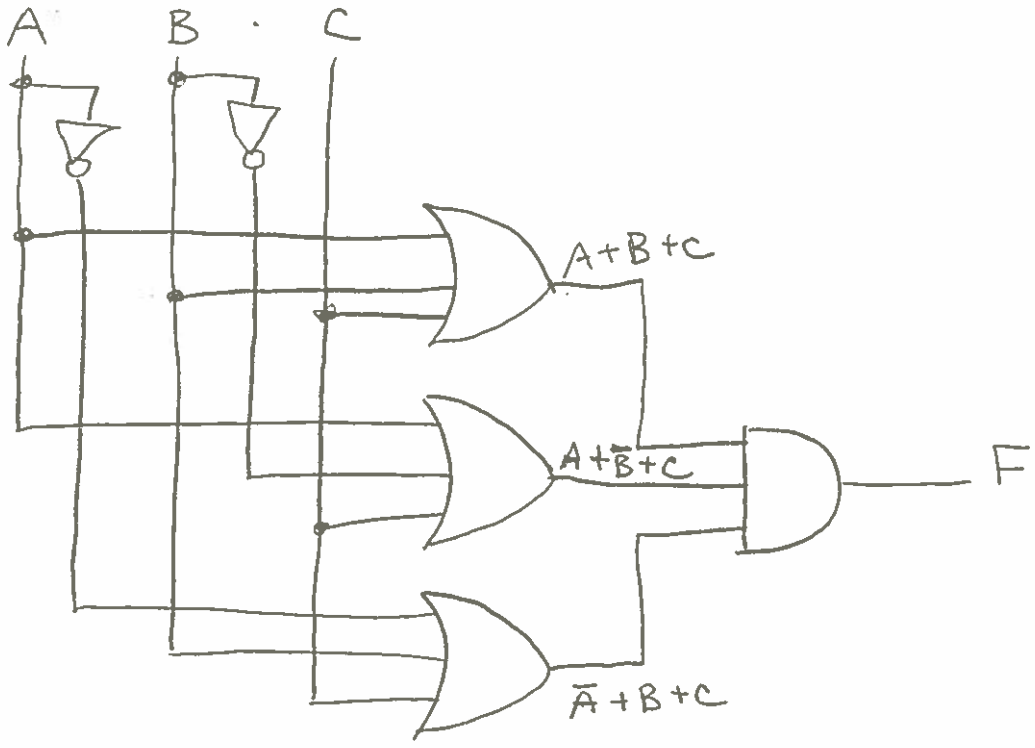


$$\bar{F} = \bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + A\bar{B}\bar{C}$$



$$F = (A+B+C)(A+\bar{B}+C)(\bar{A}+B+C)$$

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