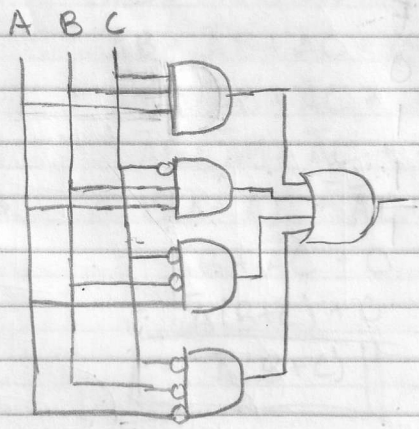
4(1)..

A	B	C	F	minterm	maxterm
0	0	0	1	$\bar{A}\bar{B}\bar{C}$	$A+B+C$
0	0	1	1	$\bar{A}\bar{B}C$	$A+B+\bar{C}$
0	1	0	0	$\bar{A}B\bar{C}$	$A+\bar{B}+C$
0	1	1	0	$\bar{A}BC$	$A+\bar{B}+\bar{C}$
1	0	0	0	$A\bar{B}\bar{C}$	$\bar{A}+B+C$
1	0	1	0	$A\bar{B}C$	$\bar{A}+B+\bar{C}$
1	1	0	1	$AB\bar{C}$	$\bar{A}+\bar{B}+C$
1	1	1	1	ABC	$\bar{A}+\bar{B}+\bar{C}$

SOP Form:

$Y = F(A,B,C) = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + AB\bar{C} + ABC = \Sigma(0,1,6,7)$

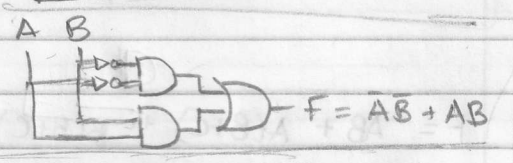


$F = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + AB\bar{C} + ABC$

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

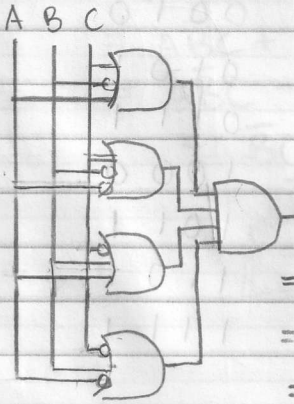
$= \bar{A}\bar{B}(1) + AB(1)$

$= \bar{A}\bar{B} + AB$



POS Form:

$Y = F = (A,B,C) = (A+\bar{B}+C)(A+\bar{B}+\bar{C})(\bar{A}+B+C)(\bar{A}+B+\bar{C}) = \Pi(2,3,4,5)$



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

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

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

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

$= AB + \bar{A}\bar{B}$

$= \overline{A \oplus B}$