	No.
•	Date:
Write dual of the following	Bolean Expression:
a.) (x+y') -> xy'	$\mathcal{C} = c_{2j_1 j_2} \cdots \frac{1}{c_{j_2 j_2}}$
b.) xy + xy' + x'y - (x+y)	(x+4')(x'+y)
(.) a + a'b + b' - a (a'+	-b)b'
d.) (x+y'+2)(x+y) xy'z	+ X4
	Land State of the Control of the Con
Find the complement of the foil	owing functions applying
De Morgan's theorem:) (())
a.) F(x,y,2) = x'y 2 + x'y' 2	
F'(x,y,2) =(x'y2')'(x'g'2)'	the the second of the second
=(x+y'+2)(x+y+2	
b-) F(x,4,2) = x(4'2+42)	
b.) F(x,y,z) = x(y'z+yz) = x+(y'z)'(yz)'	
	- 1
Find the complements of the e	xDrecsions
1) X + Y2 + X2 - (1x 11 - 2 2 X	1

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	b-) F(x,y,z) = x(y'z+yz)
	= x+(y'2)'(y2)'
	2 X' + (y+2')(y'2')
3.	Find the complements of the expressions
	i.) X+ Y2+X2 f(x,y,2) = X+ Y2+X2
	f'(x,4,2) (x+2))'
	2×'(y'+2')(x'+2')
	ii.7AB(C'D+B'C) - f(A,B,C,Q=AB(C'D+B'C).
	f'(ABC1012(A+B+((C'+D)(B+C)))
	= A'+B'+((c+0')(B*+C'))

for each X, y in {0,1}

the bolean Algebra, verify using truth table that (x+y)'=

1.

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4.

	Date:
5-	Give argebraic proof of absorption low of boolean
	algebra:
	Absorption law states that:
	(i) X + XY = X (y+1) = X
	X ×X
	(ii) ×(×+Y)×× → X+(0.y)=×
	$\times + 0 = \times$
	× =×
6.	Convert the following expression to Canonical SOP from:
	(a) X + X' 7 + X' 2'
	- x = X (Y+Y')(2+2')
	= XYZ+XY'Z+XYZ'+ XYZ'
	→ x'y= x'y2 + x'y2'
	- x'z'= x'yz' + x'y'z'
	X y z'
	=> x + 2 + x + 2' + x + 2 + x + 2' + x + x + x + 2' + x + x + x + x + x + x + x + x + x +
	afau m7+ m6 + m5 + m9 + m3 + m2 * max + m0
	(b) YZ + X' Y
	→ * 2 × 72 + × 72 * * * * * * * * * * * * * * * * * *
	xy2xy2+xy2'
	=> x 1/2 + x 1/2 + x 1/2'
	atau m7+ m3+ m2
	(C) AB'(B'+C') - AB' +AB'C'
	→ AB' = AB'C' AB'C' = AB'C'
	AB'C' = AB'C'
	AB'C + AB'C'
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