Homework 2

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Question 1

a) $F_1(A, B, C, D) = \sum_{m} (0, 1, 4, 5, 8, 9, 10, 12, 13)$ b) $F_2(A, B, C, D) = \sum_{m} (3, 5, 7, 8, 9, 10, 11, 13, 15)$

AB	00	01	11	10
00	1	1)		
01	1	1	- Control of Control	
11	1	1		1
10	1	1		1

F.	מל	C ¹	+	A	B'	n'
' 1	194	_	_	11	IJ	2

f	CD	00	01	11	10	
	00			1		F2 = AB+CD+BD
	01		1	1	A	
	11		1	1		
	10	1	1	1	1	

Question 2 F = AB' + AD + BC + CD' + A'B'C'D'

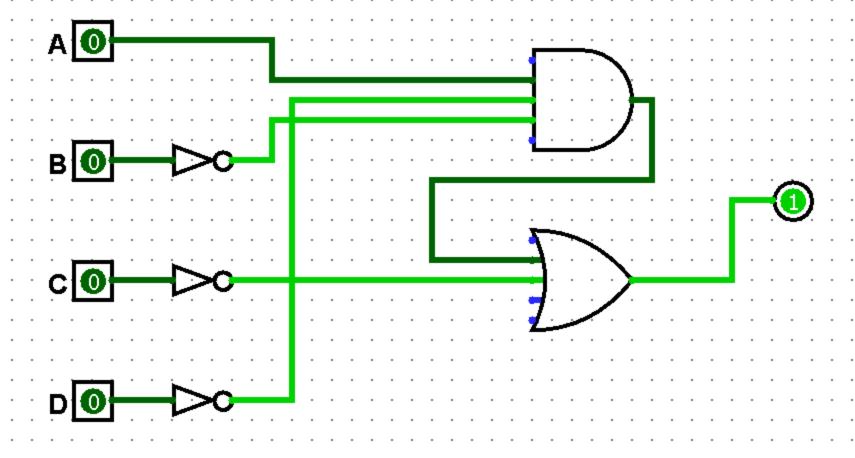
A	B	C	D	F
A 0000000011111111	B 00001111100001111	0001100110011	001010101010101	F 10100011111011
1	000	0	01	1
1	001	1	1	1
111	1	01	1 0	1 1
11	1	11	11	1

CD AB	00	01	11	10
00	1	0	0	1
01	0	0	1	1
11	0	1	1	1
10	7	1	1	9

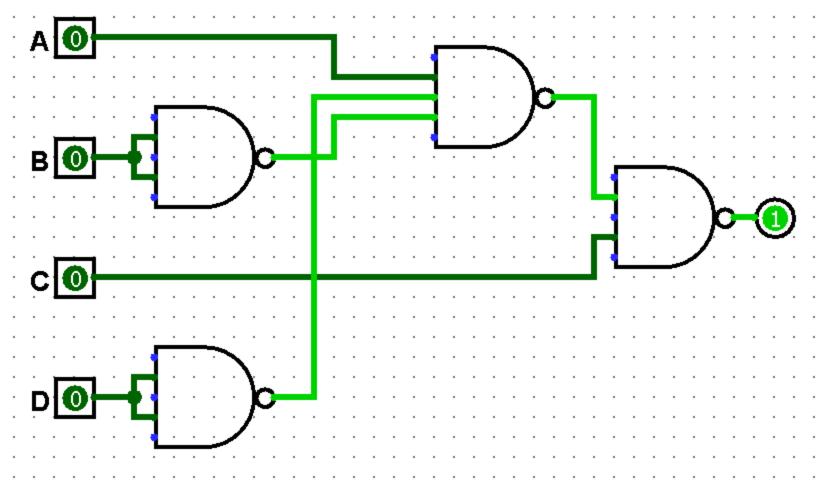
	$\alpha'\alpha'$	AD.	n (
L –	BD	+ AD +	. DI
	DD.	י חטי	DI

AB	00	01	11	10
00	1	0	0	1
01		0	1	1
11	0	1	1	1
10	1	1	1	1

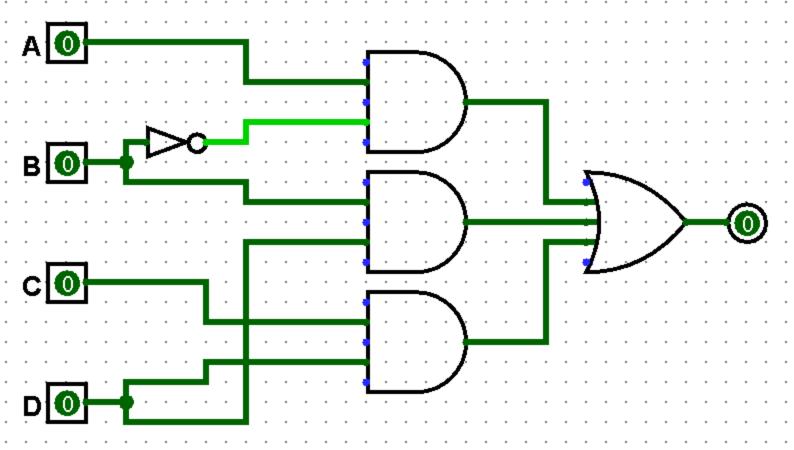
(Question 1) Function 1



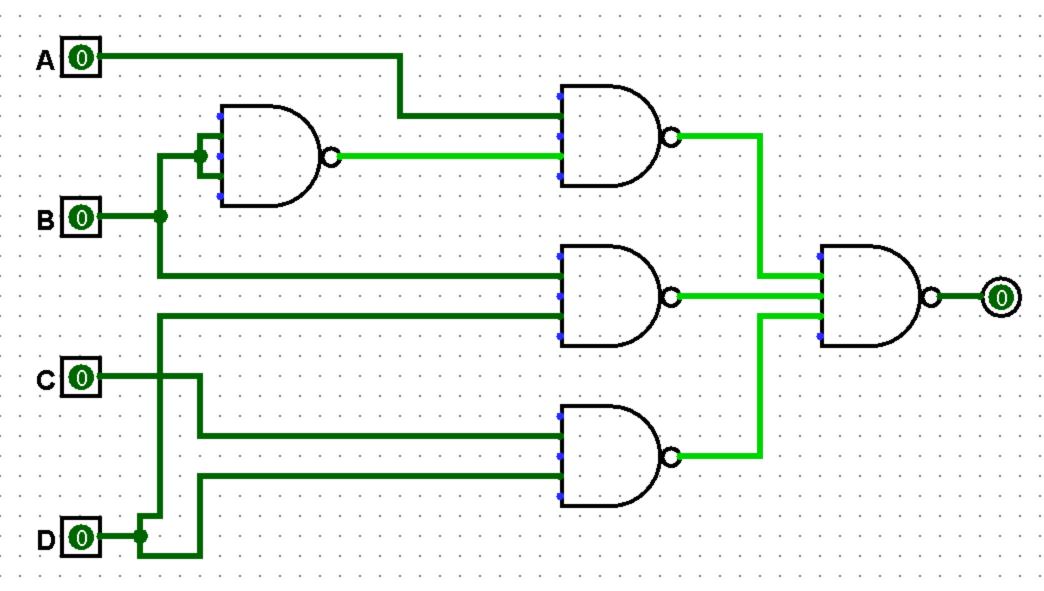
(Question 1) Function 1 (NAND)



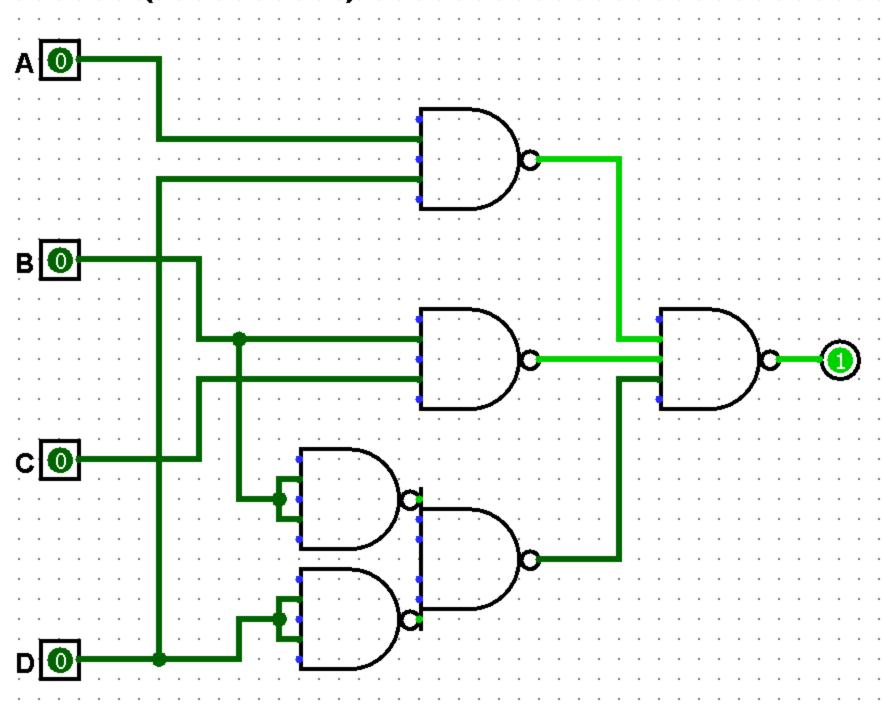
(Question:1):Function 2



(Question 1) Function 2 (NAND):



(Question2) F = B'D' + AD + BC



(Question2) F' = BC'D' + A'C'D + A'B'D

