

Homework 3 Solutions**From Lam, O'Malley Textbook**3.9a

74.08

3.9b

Input 1	Input 2	Output
L	L	L
L	H	L
H	L	L
H	H	H

3.9c, 3.9d

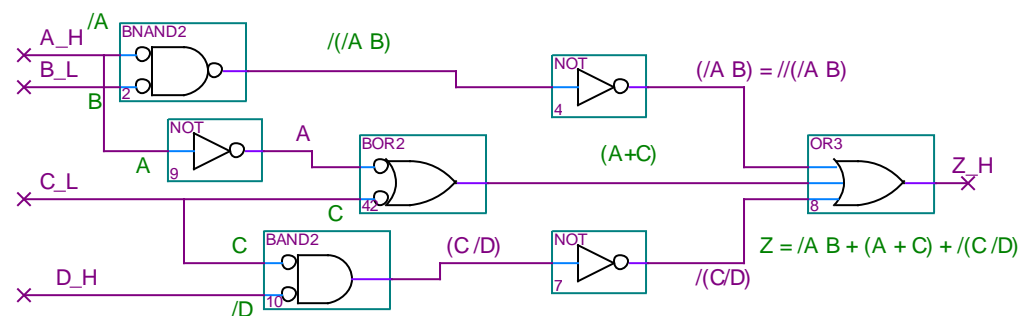
I1(H), I2(H), O(H)	$O = I1 * I2$ (for part e)
I1(H), I2(H), O(L)	$O = /(I1 * I2)$
I1(H), I2(L), O(H)	$O = I1 * /I2$
I1(H), I2(L), O(L)	$O = /(I1 * /I2)$
I1(L), I2(H), O(H)	$O = /I1 * I2$
I1(L), I2(H), O(L)	$O = /(/I1 * I2)$
I1(L), I2(L), O(H)	$O = /I1 * /I2$
I1(L), I2(L), O(L)	$O = /(/I1 * /I2) = I1 + I2$ (for part f)

3.9e

AND

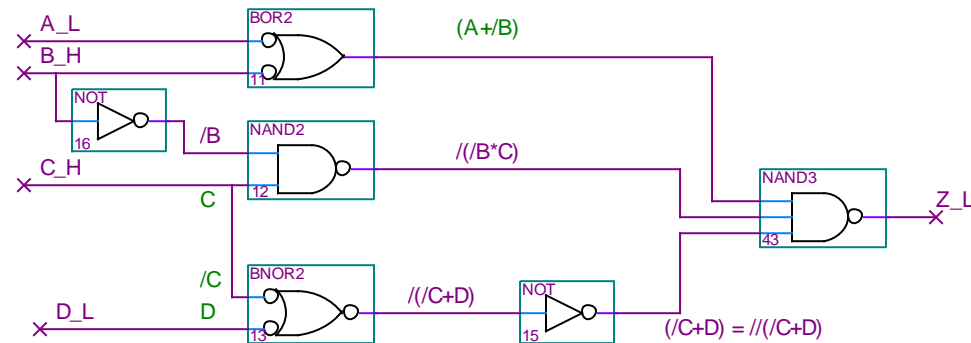
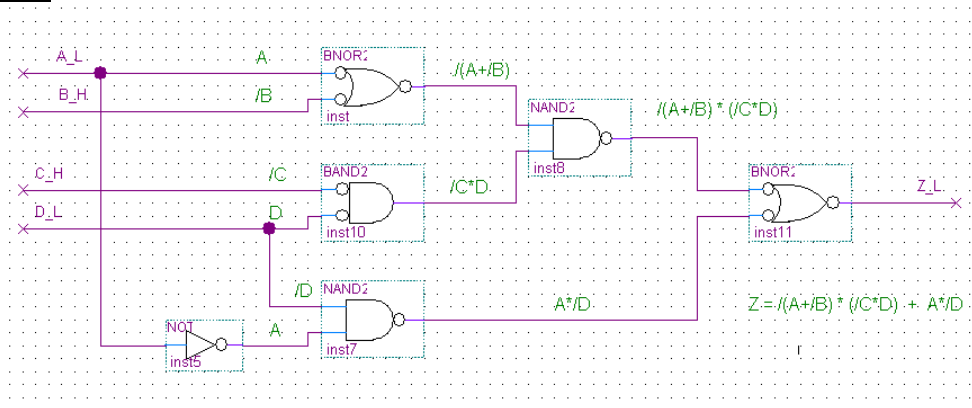
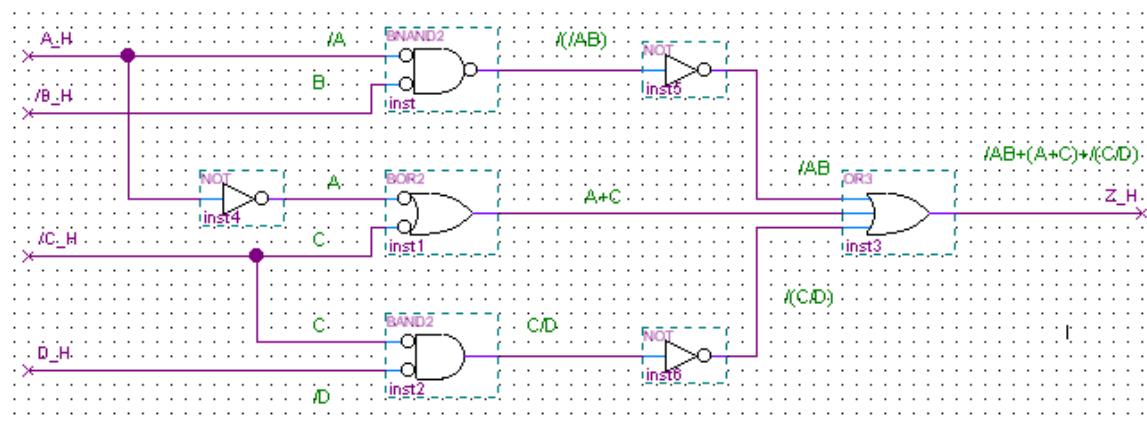
3.9f

OR

3.13

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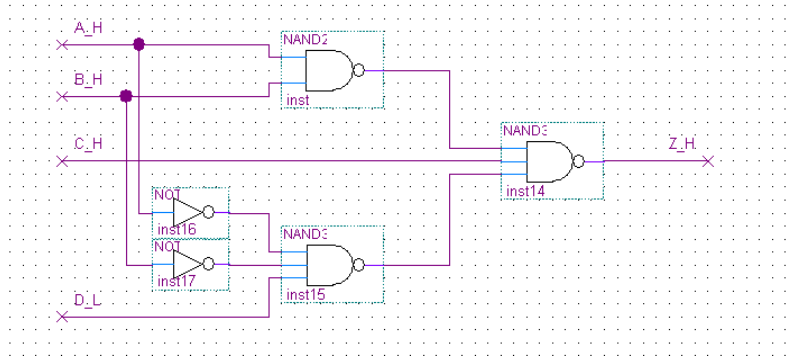
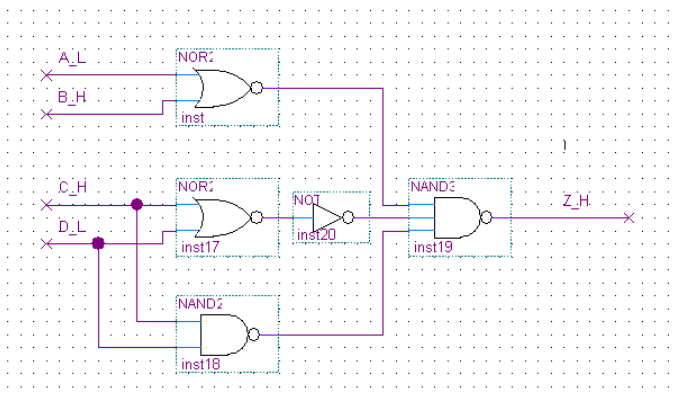
From Lam, O'Malley Textbook3.143.153.163.20

a) $Z = AC + B/CD + /C$

b) $Z = \neg(A + B + /D) (A + C)$

Homework 3 Solutions**From Lam, O'Malley Textbook**3.23

$$Z = (A + \neg B + C) (\neg A + B) (\neg A + \neg C)$$

3.26a3.26c3.26e