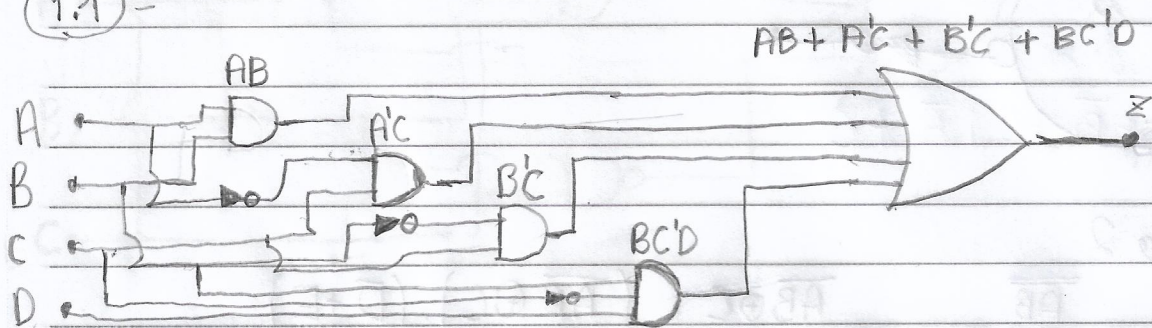
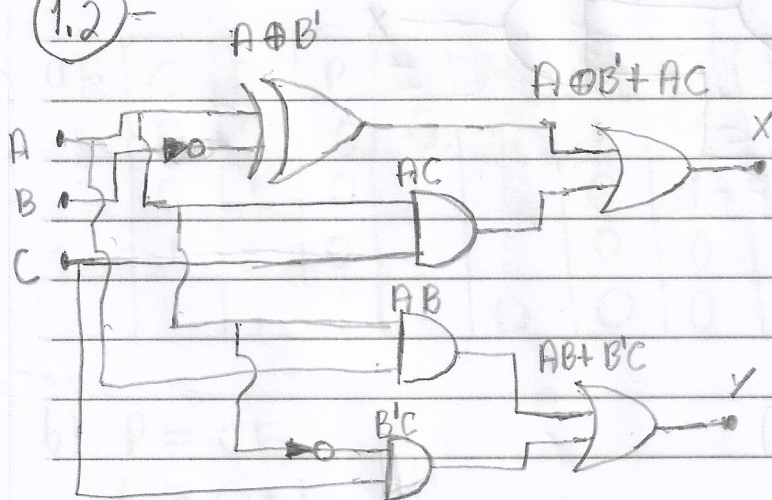


Prática 02 - Portas

1.1 -



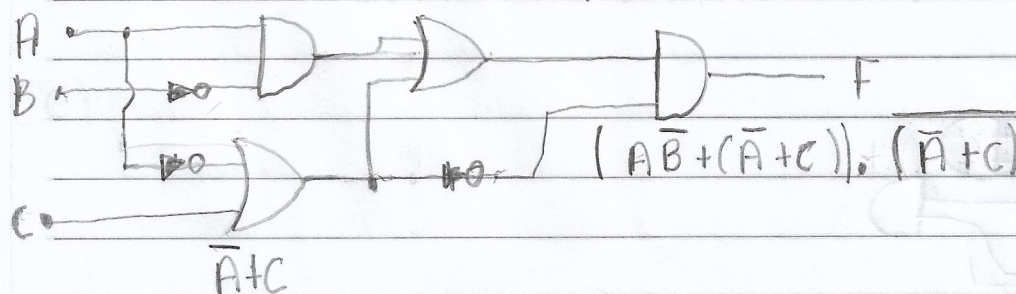
1.2 -



1.3

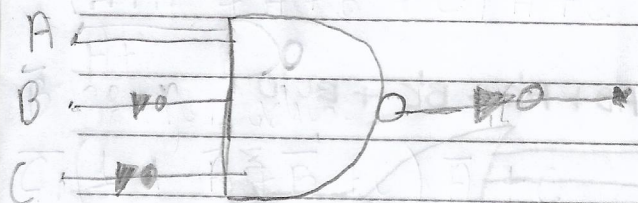
Circuito J

a) AB $AB + (\bar{A} + C)$

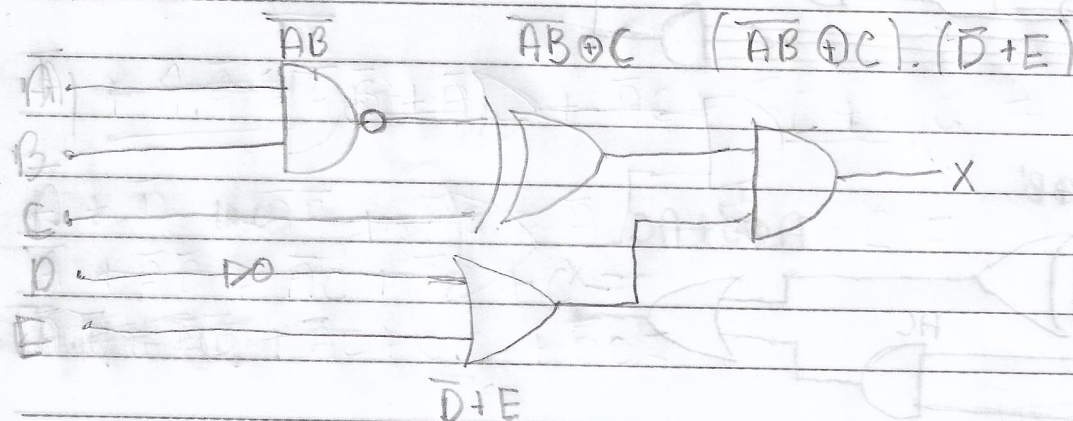


b) $(AB + (\bar{A} + C)) \cdot (\bar{A} + C) = (AB + \bar{A} + C) \cdot \bar{A} + C = AB\bar{A} + \bar{A}\bar{A} + C\bar{A} + AB\bar{C} + \bar{A}\bar{C} + C\bar{C} = AB\bar{C} + 0 + 0 = A \cdot B \cdot \bar{C}$

c) $A \cdot \bar{B} \cdot \bar{C}$



Circuito 2



a) $X = (\bar{A}B \oplus C) \cdot (\bar{D} + E)$

b) $X = (\bar{A}\bar{B} \oplus C) \cdot (\bar{D} + E)$

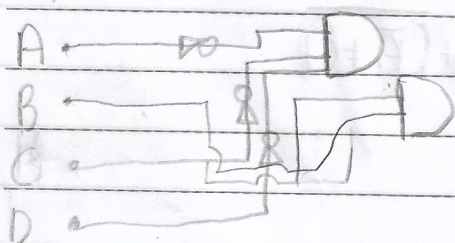
$(\bar{A}\bar{B}C + A\bar{B}\bar{C})(\bar{D} + E)$

$(\bar{A} + \bar{B}) \cdot \bar{C} + A\bar{B}C)(\bar{D} + E)$

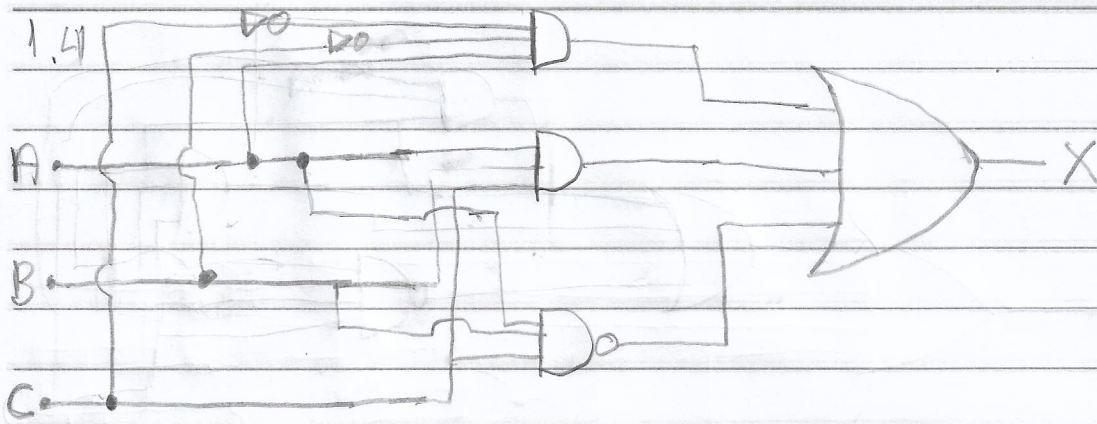
$(\bar{A}\bar{C} + \bar{B}\bar{C} + A\bar{B}C)(\bar{D} + E)$

$\bar{A}\bar{C}\bar{D} + \bar{B}\bar{C}\bar{D} + A\bar{B}C\bar{D} + \bar{A}\bar{C}E + \bar{B}\bar{C}E + A\bar{B}CE$

c)



$X = A \cdot (B + C) \cdot D = (A \cdot B + A \cdot C) \cdot D = A \cdot B \cdot D + A \cdot C \cdot D = A \cdot B \cdot D + A \cdot C \cdot D$



1.5

a)

C	F	P	R	M	B	S
0	0	0	0	0	1	1
0	1	0	1	1	0	1
1	0	0	1	1	0	0
1	1	1	1	0	0	0

b) $P = CF$

$R = C + F$

$M = C\bar{F} + \bar{C}F$

$B = \bar{C}F$

$S = \bar{C} + F$

c)