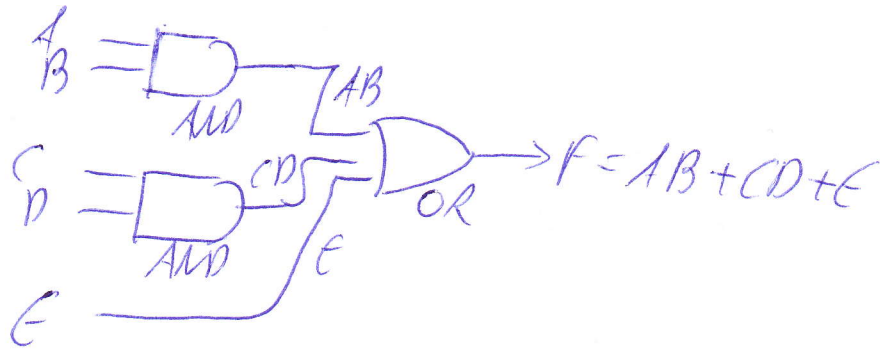
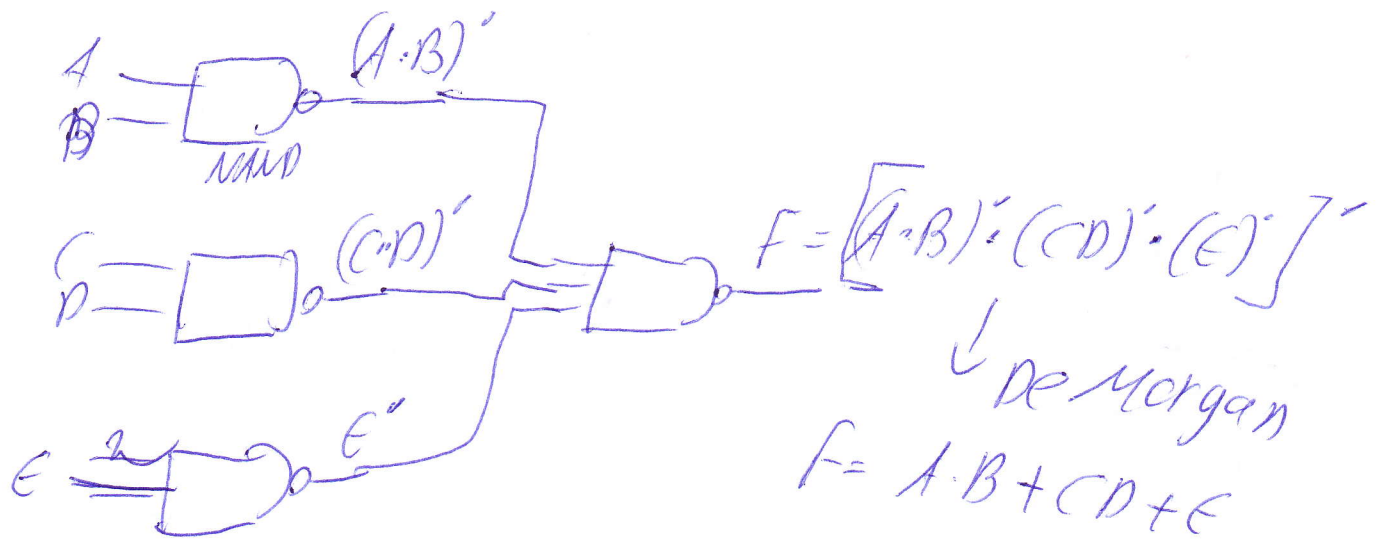


$$F = A \cdot B + CD + E$$



Yaccción por NAND



$$F = (1, 2, 3, 4, 5, 7)$$

$$f = XY' + X'Y + Z$$

| x \ yz | m ₀ | m ₁ | m ₃ | m ₂ |
|--------|----------------|----------------|----------------|----------------|
| 0 | 00 | 01 | 11 | 10 |
| 0 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | |
| | m ₄ | m ₅ | m ₇ | m ₆ |

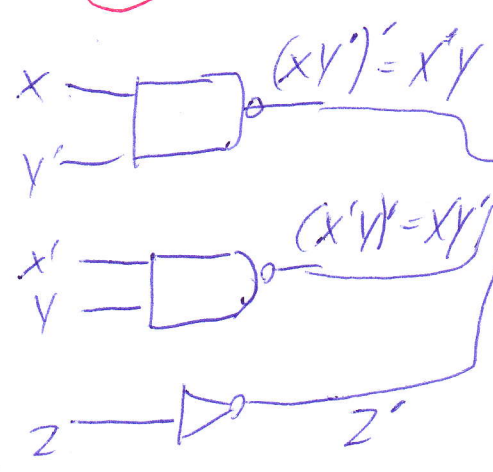
$$xy'$$

$$x'y$$

$$x'yz + x'yz' = x'y(z+z') = x'y$$

$$xy'z' + xy'z = xy'(z'+z) = xy'$$

$$x'y'z + x'y'z' + xy'z + xy'z' = x'y'(z+z') + xz(y+y') = x'y' + xz = z(x'+x) = z$$

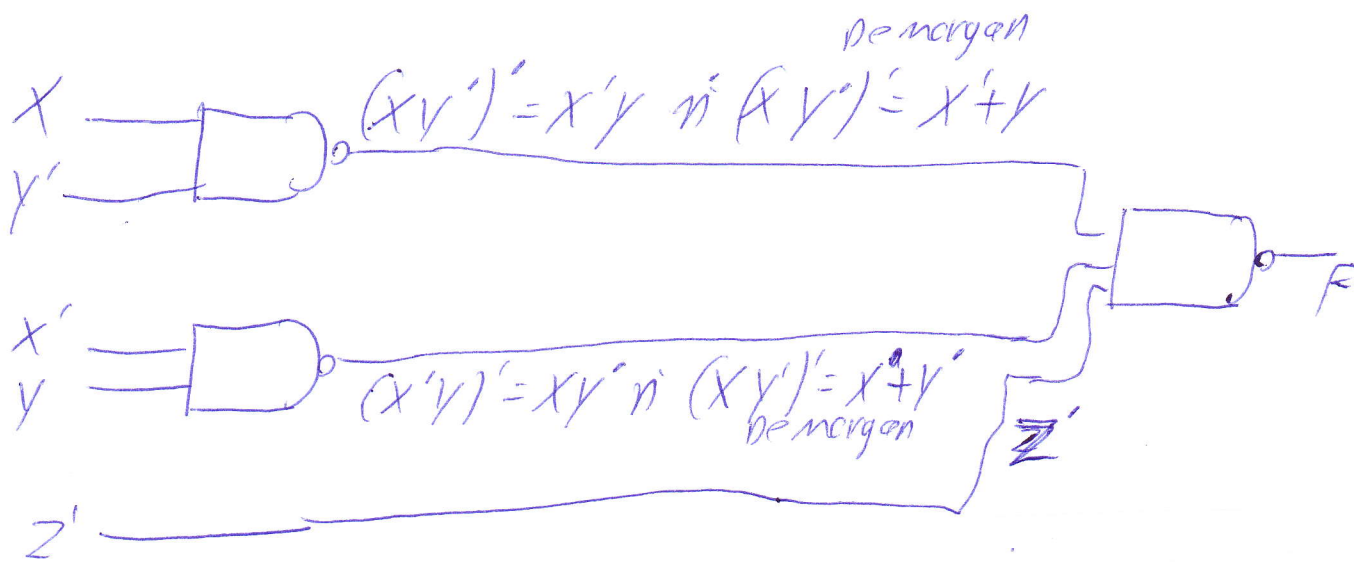


$$F = XY' + X'Y + Z'$$

For $F = XY' + X'Y + Z'$ applying De Morgan's law

$$(XY' + X'Y + Z')' = X'Y \cdot XY' \cdot Z$$

υλοποίηση με NAND



$$F = \overline{(\overline{X'Y})(\overline{XY})Z'} = (\overline{X'Y})(\overline{XY})Z' \Rightarrow$$

$$F = (XY')(X'Y)Z$$

Εάν εφαρμοσθεί De Morgan τότε γίνεται:

$$F = \overline{(\overline{XY})'(\overline{X'Y})'Z'} =$$

$$XY' + X'Y + Z' \text{ το οποίο}$$

υλοποιείται με αυτό το κυκλώμα

