

RESULTADOS

Ejercicio 1.

a)

X	Y	Z
0	0	1
0	1	1
1	0	0
1	1	1

$$\overline{((X+Y) \bullet (X+Y))} \oplus Y = Z$$

b)

X	Y	Z
0	0	1
0	1	0
1	0	1
1	1	1

$$\overline{(X+X)} \oplus \overline{((X+Y) \bullet (X+Y))} = Z$$

c)

X	Y	R	Z
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

$$\overline{(X \bullet R)} + \overline{(R + Y)} \oplus \overline{(X \bullet R)} = Z$$

d)

X	Y	Z	W
0	0	0	0
0	1	1	1
1	0	1	1
1	1	0	1

$$\overline{(X \bullet Y)} \oplus \overline{(X + Y)} = Z$$

$$\overline{\overline{(X \bullet Y)} \bullet \overline{\overline{(X + Y)}}} = W$$

e)

X	Y	Z	R
0	0	1	1
0	1	0	1
1	0	0	1
1	1	1	0

$$\overline{\overline{(X \bullet Y)} \oplus \overline{\overline{(X + Y)}}} = Z$$

$$\overline{(X \bullet Y)} + \overline{(X + Y)} = R$$

Ejercicio 2.

X=154/d = 0 1001 1010/b

Y=263/d = 1 0000 0111/b

R=125/d = 0 0111 1101/b

a) 0 0000 0000 $\overline{((X+Y) \bullet (\overline{X+Y}))} \oplus ((X+Y) + \overline{(\overline{X+Y}))} = Z$

b) 0 0000 0000 $((X+Y) + \overline{(\overline{X+Y}))} \oplus \overline{((X+Y) \bullet (\overline{X+Y}))} = Z$

c) 1 1000 0000 $\overline{((X+R) \bullet (\overline{R+Y}))} \oplus ((X+R) + \overline{(\overline{R+Y}))} = Z$

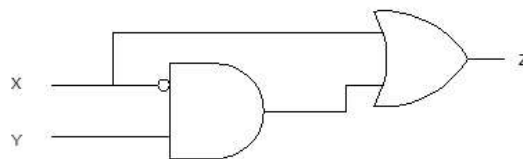
d) 0 0110 0010 $\overline{((\overline{X \bullet Y}) + (\overline{X+Y}))} \oplus \overline{((\overline{X \bullet Y}) \bullet (\overline{X+Y}))} = Z$

e) 1 1001 1111 $\overline{((\overline{X \bullet Y}) + (\overline{X+Y}))} \oplus \overline{((\overline{X \bullet Y}) \oplus (\overline{X+Y}))} = Z$

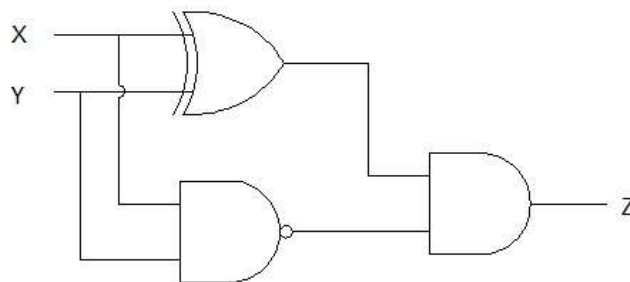
f) 0 0000 0010 $((\overline{X \bullet Y}) \oplus (\overline{X+Y})) \oplus \overline{((\overline{X \bullet Y}) \bullet (\overline{X+Y}))} = Z$

Ejercicio 3.

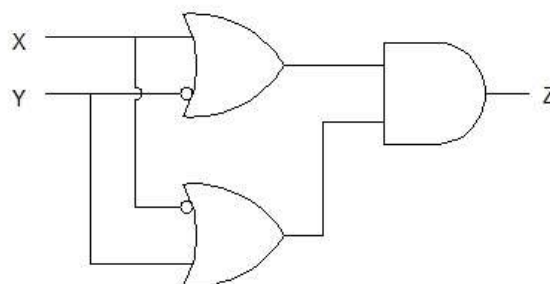
a)



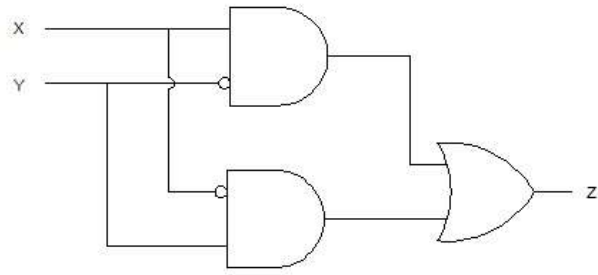
b)



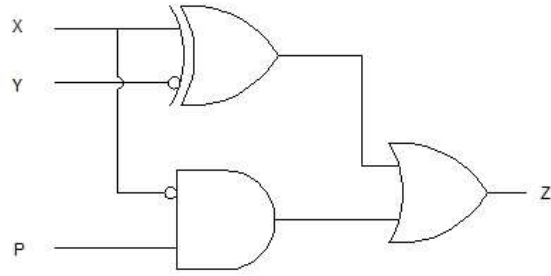
c)



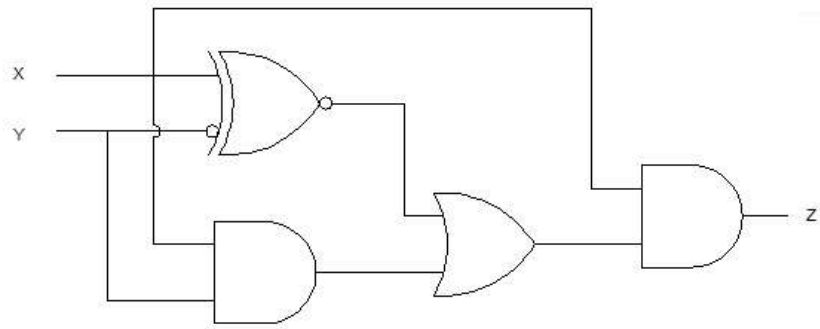
d)



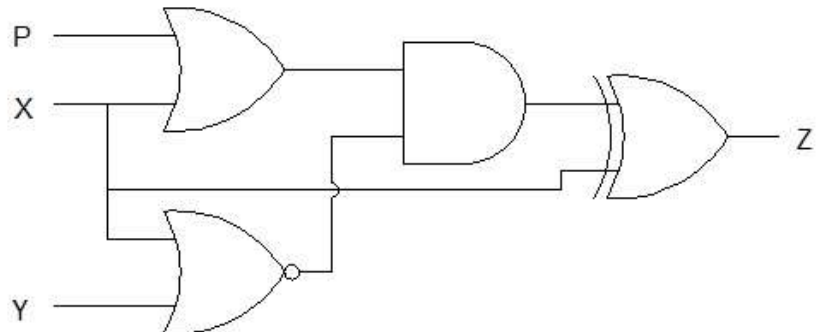
e)



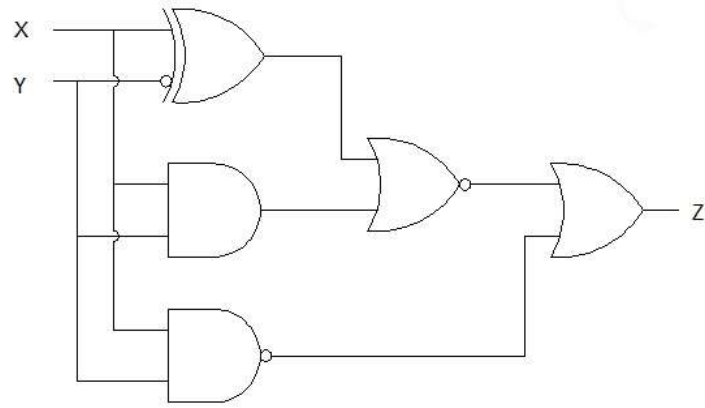
f)



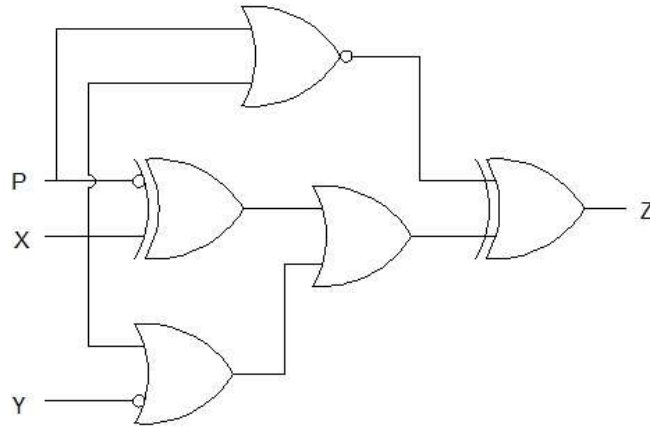
g)



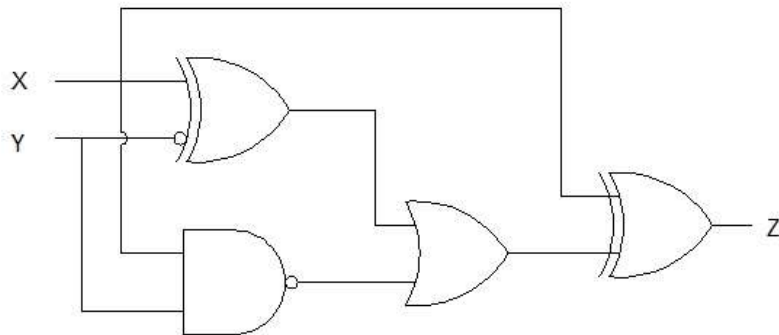
h)



i)



j)



Ejercicio 4.

- a) 1000 0100
- b) 1110 1101
- c) 0110 1001
- d) 0101 0011

- e) 0111 1110
- f) 0000 0000
- g) 1001 0011
- h) 1001 0110

Ejercicio 5.

- a) 1 x6 1 x4 1 x2 1 x0
- b) 1 1 x5 1 1 x2 1 x0
- c) x7 0 0 0 x3 0 0 0

- d) x7 0 0 0 x3 x2 0 x0
- e) $\overline{x7}$ x6 $\overline{x5}$ x4 $\overline{x3}$ $\overline{x2}$ $\overline{x1}$ x0
- f) $\overline{x7}$ x6 x5 x4 $\overline{x3}$ x2 $\overline{x1}$ $\overline{x0}$

Ejercicio 6.

- a) or con 49/h
- b) and con DB/h
- c) xor con 92/h
- d) or con 04/h - and con EF/h - xor con 40/h