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Guía#3

1. Diseño Digital. M. Morris Mano. Cap 2. Problemas 2-1, 2-2, 2-3 y 2-4 pag 61

2.1-

| **x** | **y** | **z** | **x + y + z** | **(x + y + z)'** | **x'y'z'** |
| --- | --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 | 0 |

Observamos que las columnas (x + y + z)' y x'y'z' son idénticas, lo que demuestra que (x+y+z)'=x'y'z'.

| **x** | **y** | **z** | **yz** | **x + yz** | **(x + y)(x + z)** |
| --- | --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 |

Observamos que las columnas x + yz y (x + y)(x + z) son idénticas, lo que demuestra que x + yz = (x + y)(x + z).

2.2- a-x

b-x

c-y

d-0

2.3- a- B

b- z (x + y)

c- x’y’

d- x (w + z)

e- 0

2.4- a- AB+C’

b- x + y + z

c- B

d- A’ (B+C’D)

2. Electrónica Digital. James M. Bignell y Robert L. Donovan. Cap 3. Ejercicios de autoevaluación de las secciones 3.4, 3.5 Ejercicios 1, 2, 3, 4, 5, 6, 7, 8 y 9. pag 129.

1- 1

2- 0

3- 1

4- A + BC

5-!(A)B

6-!(C)(B+A)

7-!(!(A)C)

8-!(ABC)

9-!(A + B + C)