**1. Asociatividad**

**Para ∨\vee (OR)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **xx** | **yy** | **zz** | **x∨(y∨z)x \vee (y \vee z)** | **(x∨y)∨z(x \vee y) \vee z** | **Verifica** |
| False | False | False | False | False | ✅ |
| False | False | True | True | True | ✅ |
| False | True | False | True | True | ✅ |
| False | True | True | True | True | ✅ |
| True | False | False | True | True | ✅ |
| True | False | True | True | True | ✅ |
| True | True | False | True | True | ✅ |
| True | True | True | True | True | ✅ |

**Para ∧\wedge (AND)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **xx** | **yy** | **zz** | **x∧(y∧z)x \wedge (y \wedge z)** | **(x∧y)∧z(x \wedge y) \wedge z** | **Verifica** |
| False | False | False | False | False | ✅ |
| False | False | True | False | False | ✅ |
| False | True | False | False | False | ✅ |
| False | True | True | False | False | ✅ |
| True | False | False | False | False | ✅ |
| True | False | True | False | False | ✅ |
| True | True | False | False | False | ✅ |
| True | True | True | True | True | ✅ |

**2. Conmutatividad**

**Para ∨\vee (OR)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **xx** | **yy** | **x∨yx \vee y** | **y∨xy \vee x** | **Verifica** |
| False | False | False | False | ✅ |
| False | True | True | True | ✅ |
| True | False | True | True | ✅ |
| True | True | True | True | ✅ |

**Para ∧\wedge (AND)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **xx** | **yy** | **x∧yx \wedge y** | **y∧xy \wedge x** | **Verifica** |
| False | False | False | False | ✅ |
| False | True | False | False | ✅ |
| True | False | False | False | ✅ |
| True | True | True | True | ✅ |

**3. Distributividad**

**x∧(y∨z)=(x∧y)∨(x∧z)x \wedge (y \vee z) = (x \wedge y) \vee (x \wedge z)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **xx** | **yy** | **zz** | **x∧(y∨z)x \wedge (y \vee z)** | **(x∧y)∨(x∧z)(x \wedge y) \vee (x \wedge z)** | **Verifica** |
| False | False | False | False | False | ✅ |
| False | False | True | False | False | ✅ |
| False | True | False | False | False | ✅ |
| False | True | True | False | False | ✅ |
| True | False | False | False | False | ✅ |
| True | False | True | True | True | ✅ |
| True | True | False | True | True | ✅ |
| True | True | True | True | True | ✅ |

**x∨(y∧z)=(x∨y)∧(x∨z)x \vee (y \wedge z) = (x \vee y) \wedge (x \vee z)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **xx** | **yy** | **zz** | **x∨(y∧z)x \vee (y \wedge z)** | **(x∨y)∧(x∨z)(x \vee y) \wedge (x \vee z)** | **Verifica** |
| False | False | False | False | False | ✅ |
| False | False | True | False | False | ✅ |
| False | True | False | False | False | ✅ |
| False | True | True | True | True | ✅ |
| True | False | False | True | True | ✅ |
| True | False | True | True | True | ✅ |
| True | True | False | True | True | ✅ |
| True | True | True | True | True | ✅ |

**4. Identidad**

**Para ∨\vee (OR)**

|  |  |  |
| --- | --- | --- |
| **xx** | **x∨Falsex \vee \text{False}** | **Verifica** |
| False | False | ✅ |
| True | True | ✅ |

**Para ∧\wedge (AND)**

|  |  |  |
| --- | --- | --- |
| **xx** | **x∧Truex \wedge \text{True}** | **Verifica** |
| False | False | ✅ |
| True | True | ✅ |

**5. Complementos**

**x∨¬x=1x \vee \neg x = 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **xx** | **¬x\neg x** | **x∨¬xx \vee \neg x** | **Verifica** |
| False | True | True | ✅ |
| True | False | True | ✅ |

**x∧¬x=0x \wedge \neg x = 0**

|  |  |  |  |
| --- | --- | --- | --- |
| **xx** | **¬x\neg x** | **x∧¬xx \wedge \neg x** | **Verifica** |
| False | True | False | ✅ |
| True | False | False | ✅ |