**Tabelas da Verdade Obtidas de Expressões Booleanas**

**S =**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A** | **B** | **C** |  |  | **S** |
| 0 | 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 |

**Prove as identidades**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A** | **B** |  |  |  |  |
| 0 | 0 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 |

**Lembrete:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **AND (E)** | | |  | **OR (OU)** | | |
| **A** | **B** | **S** |  | **A** | **B** | **S** |
| 0 | 0 | 0 |  | 0 | 0 | 0 |
| 0 | 1 | 0 |  | 0 | 1 | 1 |
| 1 | 0 | 0 |  | 1 | 0 | 1 |
| 1 | 1 | 1 |  | 1 | 1 | 1 |

**Tabelas da Verdade Obtidas de Expressões Booleanas**

**S = (A+B).()**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A** | **B** | **C** | **A+B** |  | **S** |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 0 |

**Expressões Booleanas Obtidas de Tabelas da Verdade**

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **S** |  |
| **0** | **0** | **1** | **=1 e**  **=1 →** |
| **0** | **1** | **0** |  |
| **1** | **0** | **1** | **A = 1 e** **=1 → A.** |
| **1** | **1** | **1** | **A = 1 e B=1 → A.B** |

**S =**   **+ A.**  **+ A.B**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A** | **B** | **C** | **S** |  |
| 0 | 0 | 0 | 1 | **.** |
| 0 | 0 | 1 | 0 |  |
| 0 | 1 | 0 | 1 | **.** |
| 0 | 1 | 1 | 0 |  |
| 1 | 0 | 0 | 0 |  |
| 1 | 0 | 1 | 0 |  |
| 1 | 1 | 0 | 1 | **.** |
| 1 | 1 | 1 | 1 | **A.B.C** |

**S =**  **. + . + . + A. B. C**