|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | A → B | C → D | A ∨ C | B ∧ D | A → B, C → D | A ∨ C → B ∧ D | A → B, C → D ⊢ A ∨ C → B ∧ D |
| T | T | T | T | T | T | T | T |  | T |  |
| T | T | T | F | T | F | T | F |  | F |  |
| T | T | F | T | T | T | T | T |  | T |  |
| T | T | F | F | T | T | T | F |  | F |  |
| T | F | T | T | F | T | T | F |  | F |  |
| T | F | T | F | F | F | T | F |  | F |  |
| T | F | F | T | F | T | T | F |  | F |  |
| T | F | F | F | F | T | T | F |  | F |  |
| F | T | T | T | T | T | T | T |  | T |  |
| F | T | T | F | T | F | T | F |  | F |  |
| F | T | F | T | T | T | F | T |  | T |  |
| F | T | F | F | T | T | F | F |  | T |  |
| F | F | T | T | T | T | T | F |  | F |  |
| F | F | T | F | T | F | T | F |  | F |  |
| F | F | F | T | T | T | F | F |  | T |  |
| F | F | F | F | T | T | F | F |  | T |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | ¬A | A ∧ ¬A | ¬(B → C) | (B → C) | ¬(B → C) ∧ (B → C) | A ∧ ¬A ⊢ ¬(B → C) ∧ (B → C) |
| T | T | T | F | F | F | T | F |  |
| T | T | F | F | F | F | T | F |  |
| T | F | T | F | F | T | F | F |  |
| T | F | F | F | F | T | F | F |  |
| F | T | T | T | F | F | T | F |  |
| F | T | F | T | F | F | T | F |  |
| F | F | T | T | F | F | T | F |  |
| F | F | F | T | F | F | T | F |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | ¬A | ¬D | (A ∧ B) | C → D | B ∧ ¬D | (A ∧ B) → C | B ∧ ¬D ⊢ ¬A | (A ∧ B) → C, C → D, B ∧ ¬D ⊢ ¬A |
| T | T | T | T | F | F | T | T | F | T |  |  |
| T | T | T | F | F | T | T | F | T | T |  |  |
| T | T | F | T | F | F | T | T | F | F |  |  |
| T | T | F | F | F | T | T | T | T | F |  |  |
| T | F | T | T | F | F | F | T | F | T |  |  |
| T | F | T | F | F | T | F | F | F | T |  |  |
| T | F | F | T | F | F | F | T | F | T |  |  |
| T | F | F | F | F | T | F | T | F | T |  |  |
| F | T | T | T | T | F | F | T | F | T |  |  |
| F | T | T | F | T | T | F | F | T | T |  |  |
| F | T | F | T | T | F | F | T | F | T |  |  |
| F | T | F | F | T | T | F | T | T | T |  |  |
| F | F | T | T | T | F | F | T | F | T |  |  |
| F | F | T | F | T | T | F | F | F | T |  |  |
| F | F | F | T | T | F | F | T | F | T |  |  |
| F | F | F | F | T | T | F | T | F | T |  |  |