**Logic Tool Results**

Logical Expression: p→q, s→t⊢p∨s→q∨t

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Line | Expression | Rule | First Segment | Second Segment | Third Segment |
| 1 | p→q | Data |  |  |  |
| 2 | s→t | Data |  |  |  |
| ┌------------------------------------------------------------------------------------------------------┐ | | | | | |
| 3 | p∨s | Assumption |  |  |  |
| ┌----------------------------------------------------------------------------------------------┐ | | | | | |
| 4 | p | Assumption |  |  |  |
| 5 | q | MP | 1 | 4 |  |
| 6 | q∨t | ∨i1 | 5 |  |  |
| └----------------------------------------------------------------------------------------------┘ | | | | | |
| ┌----------------------------------------------------------------------------------------------┐ | | | | | |
| 7 | s | Assumption |  |  |  |
| 8 | t | MP | 2 | 7 |  |
| 9 | q∨t | ∨i2 | 8 |  |  |
| └----------------------------------------------------------------------------------------------┘ | | | | | |
| 10 | q∨t | ∨e | 3 | 4-6 | 7-9 |
| └------------------------------------------------------------------------------------------------------┘ | | | | | |
| 11 | p∨s→q∨t | →i | 3-10 |  |  |