**Logic Tool Results**

Logical Expression: p∨q⊢¬(¬p∧¬q)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Line | Expression | Rule | First Segment | Second Segment | Third Segment |
| 1 | p∨q | Data |  |  |  |
| ┌--------------------------------------------------------------------------------------------------------------┐ | | | | | |
| 2 | ¬p∧¬q | Assumption |  |  |  |
| 3 | ¬p | ∧e1 | 2 |  |  |
| 4 | ¬q | ∧e2 | 2 |  |  |
| ┌------------------------------------------------------------------------------------------------------┐ | | | | | |
| 5 | p | Assumption |  |  |  |
| 6 | ¬p | Copy | 3 |  |  |
| 7 | ⊥ | ¬e | 5 | 6 |  |
| └------------------------------------------------------------------------------------------------------┘ | | | | | |
| ┌------------------------------------------------------------------------------------------------------┐ | | | | | |
| 8 | q | Assumption |  |  |  |
| 9 | ¬q | Copy | 4 |  |  |
| 10 | ⊥ | ¬e | 8 | 9 |  |
| └------------------------------------------------------------------------------------------------------┘ | | | | | |
| 11 | ⊥ | ∨e | 2 | 5-7 | 8-10 |
| └--------------------------------------------------------------------------------------------------------------┘ | | | | | |
| 12 | ¬(¬p∧¬q) | ¬i | 2-11 |  |  |