**Logic Tool Results**

Logical Expression: ¬((¬s→q)∧(¬r→(s∧q)))→¬(¬((p∧r)∨(q∧s))), (q∨r)→(¬r→(s∧q)), ¬(¬s→q) ⊢ ((¬s→q)∨(¬r→(s∧q)))→(¬((p∧r)∨(q∧s))∧(q∨r))

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Line | Expression | Rule | First Segment | Second Segment | Third Segment |
| 1 | ¬(β∧δ)→¬ε,γ→δ,¬β⊢(β∨δ)→(ε∧γ) | Proven i |  |  |  |
| 2 | ¬((¬s→q)∧(¬r→(s∧q)))→¬(¬((p∧r)∨(q∧s))) | Data |  |  |  |
| 3 | (q∨r)→(¬r→(s∧q)) | Data |  |  |  |
| 4 | ¬(¬s→q) | Data |  |  |  |
| 5 | ((¬s→q)∨(¬r→(s∧q)))→((¬((p∧r)∨(q∧s)))∧(q∨r)) | Proven e | 1 | 2,3,4 |  |