Main Expression: p→(q∨r), q→s, r→s⊢p→s

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