Main Expression: p→q⊢¬p∨q

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Line | Expression | Rule | First Segment | Second Segment | Third Segment |
| 1 | p→q | Data |  |  |  |
| 2 | p∨¬p | LEM |  |  |  |
| ┌--------------------------------------------------------------------------------------------------------------┐ | | | | | |
| 3 | p | Assumption |  |  |  |
| 4 | q | MP | 1 | 3 |  |
| 5 | ¬p∨q | ∨i2 | 4 |  |  |
| └--------------------------------------------------------------------------------------------------------------┘ | | | | | |
| ┌--------------------------------------------------------------------------------------------------------------┐ | | | | | |
| 6 | ¬p | Assumption |  |  |  |
| 7 | ¬p∨q | ∨i1 | 6 |  |  |
| └--------------------------------------------------------------------------------------------------------------┘ | | | | | |
| 8 | ¬p∨q | ∨e | 2 | 3-5 | 6-7 |