**Logic Tool Results**

Main Expression:  
∀x(P(x)→(Q(x)∨R(x))),f(x)=y⊢P(f(x))→(Q(y)∨R(y))

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Line | Expression | Rule | First Segment | Second Segment | Third Segment |
| 1 | ∀x(P(x)→(Q(x)∨R(x))) | Data |  |  |  |
| 2 | f(x)=y | Data |  |  |  |
| 3 | P(f(x))→(Q(f(x))∨R(f(x))) | ∀x e | 1 |  |  |
| 4 | P(f(x))→(Q(y)∨R(y)) | =e | 2 | 3 |  |