Proof of Theorem 22b

The theorem to be proved is

$0 \neq 0 \quad \rightarrow \quad 0 = \text{SP0}$

Suppose the theorem does not hold. Then, with the variables held fixed,

(H) $[[\neg\,(0) = (0)] \quad \& \quad [\neg\,(0) = (S(P0))]]$

Special cases of the hypothesis and previous results:

0:   $\neg\,0 = 0$ from   H

1:   $0 = 0$ from   <u>5</u>;0

Inferences:

2:   QEA by
    0: $\neg\,0 = 0$
    1: $0 = 0$