

t59_rewrite1

(TMak7AzUfnWUpmCUkMABSZf1tNLj6gUMZVn)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r13_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r8_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r8_rewrite1 X0 X1 X2) \Rightarrow (r6_rewrite1 X0 X1 X2)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.((r5_rewrite1 X0 X1 X2) \vee (r6_rewrite1 X0 X1 X2)) \Rightarrow (r2_rewrite1 X0 X1 X2)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r13_rewrite1 X0 X1 X2) \Leftrightarrow ((r8_rewrite1 X0 X1 X2) \wedge (\neg r5_rewrite1 X0 X1 X2))) \quad (3)$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r13_rewrite1 X0 X1 X2) \Rightarrow (r2_rewrite1 X0 X1 X2))$$