

t45_rewrite1
 (TMaMvu31zEBYZupesrTUyFzyiucgAokEpUB)

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Let $v1_relat_1 : \iota \Rightarrow o$ 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 $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(k4_tarski X1 X2 \in X0) \Rightarrow (r1_rewrite1 X0 X1 X2)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.r1_rewrite1 X0 X1 X1) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r6_rewrite1 X0 X1 X2) \Leftrightarrow (\exists X3.(r1_rewrite1 X0 X3 X1) \wedge (r1_rewrite1 X0 X3 X2))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r8_rewrite1 X0 X1 X2) \Leftrightarrow (\exists X3.((k4_tarski X3 X1 \in X0) \vee (X1 = X3)) \wedge ((k4_tarski X3 X2 \in X0) \vee (X2 = X3)))) \quad (4)$$

Theorem 1

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