

t50_rewrite1
(TMdwQAg5UEyqqx992Rj6j2i8mXEnjvhp1xB)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v7_rewrite1 : \iota \Rightarrow o$ be given. Let $r11_rewrite1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r6_rewrite1 X0 X1 X2) \Leftrightarrow (\exists X3.(r1_rewrite1 X0 X3 X1) \wedge (r1_rewrite1 X0 X3 X2))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(r5_rewrite1 X0 X1 X2) \Leftrightarrow (\exists X3.(r1_rewrite1 X0 X1 X3) \wedge (r1_rewrite1 X0 X2 X3))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v7_rewrite1 X0) \Leftrightarrow (\forall X1.\forall X2.(r6_rewrite1 X0 X1 X2) \Rightarrow (r5_rewrite1 X0 X1 X2))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow ((r11_rewrite1 X0 X1) \Leftrightarrow (\forall X2.\forall X3.\forall X4.\neg(r1_rewrite1 X0 X2 X3) \wedge ((r1_rewrite1 X1 X2 X4) \wedge (\forall X5.\neg(r1_rewrite1 X1 X3 X5) \wedge (r1_rewrite1 X0 X4 X5)))))) \quad (4)$$

Theorem 1 $\forall X0.(v1_relat_1 X0) \Rightarrow ((v7_rewrite1 X0) \Leftrightarrow (r11_rewrite1 X0 X0)).$