

t92_arytm_3

(TMJvaYLmDPt8bZcJkXSW3ktasHH914avVtq)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k9_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow ((r3_arytm_3 X0 X1) \Leftrightarrow (\exists X2.(m1_subset_1 \\ X2 k5_arytm_3) \wedge (X1 = k9_arytm_3 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_arytm_3) \wedge (m1_subset_1 \\ X1 k5_arytm_3)) \Rightarrow ((r3_arytm_3 X0 X1) \vee (r3_arytm_3 X1 X0)) \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow (\neg \forall X2.(m1_subset_1 X2 k5_arytm_3) \Rightarrow ((k9_arytm_3 \\ X0 X2 \neq X1) \wedge (k9_arytm_3 X1 X2 \neq X0)))) \end{aligned}$$