

l41_arytm_3
(TMbhy7m3sq4mPYF5m3woWtPiKTRQmKApVmR)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c2_arytm_3 : \iota$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4_tarski X0 X1 = k4_tarski X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3)) \quad (1)$$

Assume the following.

$$\begin{aligned} c2_arytm_3 = & \text{ReplSep2 (toset } (\lambda X0 : \iota.m1_subset_1 X0 k4_ordinal1)) \\ & (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 X1 k4_ordinal1)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.(r1_arytm_3 X0 X1) \wedge (X1 \neq k1_xboole_0)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.k4_tarski X0 X1) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((k4_tarski X0 X1 \in c2_arytm_3) \Rightarrow \\ & ((r1_arytm_3 X0 X1) \wedge (X1 \neq k1_xboole_0)))) \end{aligned}$$