

t94_arytm_3
(TMbcbwz3YYpdQBf8chfw1Agmb4DCJnyVhi6)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_arytm_3 : \iota$ be given. Let $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k9_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow ((X0 = k11_arytm_3) \Leftrightarrow (k9_arytm_3 X0 X1 = X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow (r3_arytm_3 X0 (k9_arytm_3 X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow ((\neg r3_arytm_3 X1 X0) \Leftrightarrow ((r3_arytm_3 X0 X1) \wedge (X0 \neq \\ X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow ((k9_arytm_3 X0 X1 = k11_arytm_3) \Rightarrow (X0 = k11_arytm_3))) \end{aligned} \quad (4)$$

Assume the following.

$$\exists X0.(m1_subset_1 X0 k5_arytm_3) \wedge (v1_xboole_0 X0) \quad (5)$$

Assume the following.

$$\exists X0.(m1_subset_1 X0 k5_arytm_3) \wedge ((\neg v1_xboole_0 X0) \wedge (v3_ordinal1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_arytm_3) \wedge (m1_subset_1 \\ X1 k5_arytm_3)) \Rightarrow (m1_subset_1 (k9_arytm_3 X0 X1) k5_arytm_3) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow ((r3_arytm_3 X0 X1) \Leftrightarrow (\exists X2.(m1_subset_1 \\ X2 k5_arytm_3) \wedge (X1 = k9_arytm_3 X0 X2)))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\neg \forall X1.(m1_subset_1 \\ X1 k5_arytm_3) \Rightarrow (r3_arytm_3 X1 X0)) \end{aligned}$$