

t59_arytm_3 (TMMKQpCiEpMbF- pFs5GNQHzFvLFMywDBcrXe)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k10_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k8_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_arytm_3 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_arytm_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((k8_arytm_3 k1_xboole_0 \\ & X0 = k1_xboole_0) \wedge (k8_arytm_3 X1 np_1 = X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((k11_ordinal2 np_1 X0 = X0) \wedge (k11_ordinal2 X0 np_1 = X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \wedge \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1))) \Rightarrow (k9_ordinal3 X0 X1 = k11_ordinal2 \\ & X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \wedge \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1))) \Rightarrow ((v3_ordinal1 (k11_ordinal2 \\ & X0 X1)) \wedge (v7_ordinal1 (k11_ordinal2 X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (m1_subset_1 (k7_arytm_3 X0) k4_ordinal1) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k4_ordinal1) \Rightarrow (((X0 \in k4_ordinal1) \Rightarrow ((X1 = k7_arytm_3 X0) \Leftrightarrow (X1 = \\ & np_1))) \wedge ((\neg X0 \in k4_ordinal1) \Rightarrow ((X1 = k7_arytm_3 X0) \Leftrightarrow (\exists X2. \\ & ((v3_ordinal1 X2) \wedge (v7_ordinal1 X2)) \wedge (X0 = k4_tarski X2 X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k4_ordinal1) \Rightarrow (((X0 \in k4_ordinal1) \Rightarrow ((X1 = k6_arytm_3 X0) \Leftrightarrow (X1 = \\ & X0))) \wedge ((\neg X0 \in k4_ordinal1) \Rightarrow ((X1 = k6_arytm_3 X0) \Leftrightarrow (\exists X2. \\ & ((v3_ordinal1 X2) \wedge (v7_ordinal1 X2)) \wedge (X0 = k4_tarski X1 X2)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k5_arytm_3) \Rightarrow (k10_arytm_3 X0 X1 = k8_arytm_3 (k9_ordinal3 (k6_arytm_3 \\ & X0) (k6_arytm_3 X1)) (k9_ordinal3 (k7_arytm_3 X0) (k7_arytm_3 \\ & X1)))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v3_ordinal1 X0) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow ((v3_ordinal1 X0) \Rightarrow ((v3_ordinal1 X0) \wedge (v7_ordinal1 X0))) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (m1_subset_1 X0 k5_arytm_3)) \Rightarrow (\\ & \forall X1.((v3_ordinal1 X1) \wedge (m1_subset_1 X1 k5_arytm_3)) \Rightarrow (\\ & k10_arytm_3 X0 X1 = k9_ordinal3 X0 X1)) \end{aligned}$$