

t43_arytm_3 (TMVkkoWmjX- CQWwvVWF2uosUQj8PYJvkR4pi)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_arytm_3 : \iota \Rightarrow \iota$ be given. Let $k8_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_arytm_3 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow ((k6_arytm_3 \\ & (k8_arytm_3 X1 X0) = k4_arytm_3 X1 X0) \wedge (k7_arytm_3 (k8_arytm_3 \\ & X1 X0) = k4_arytm_3 X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((r1_arytm_3 X0 X1) \Rightarrow (k4_arytm_3 \\ & X0 X1 = X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (\\ & (r1_arytm_3 X0 X1) \Rightarrow (r1_arytm_3 X1 X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{4}$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (v3_ordinal1 X0) \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 k4_ordinal1) \Rightarrow ((r1_arytm_3 X0 X1) \Rightarrow ((X1 = k1_xboole_0) \vee ((k6_arytm_3 \\ & (k8_arytm_3 X0 X1) = X0) \wedge (k7_arytm_3 (k8_arytm_3 X0 X1) = X1)))))) \end{aligned}$$