

l3_xreal_0

(TMUfqWHCrD7yux4eqiXvyb7JiyBXMe2YLds)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k2_arytm_2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_arytm_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$r1_xboole_0 \ k2_arytm_2 \ (k2_zfmisc_1 \ (k1_tarski \ k11_arytm_3) \ k2_arytm_2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 \ X0 \ X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 \ X0 \ X1)) \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$k11_arytm_3 = k1_xboole_0 \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\
& ((X0 \in k2_arytm_2) \wedge (X1 \in k2_arytm_2)) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (\exists X2. \\
& (m1_subset_1 X2 k2_arytm_2) \wedge (\exists X3.(m1_subset_1 X3 k2_arytm_2) \wedge \\
& ((X0 = X2) \wedge ((X1 = X3) \wedge (r1_arytm_2 X2 X3)))))) \wedge (((X0 \in k2_zfmisc_1 \\
& (k1_tarski k6_numbers) k2_arytm_2) \wedge (X1 \in k2_zfmisc_1 (k1_tarski \\
& k6_numbers) k2_arytm_2)) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (\exists X2.(\\
& m1_subset_1 X2 k2_arytm_2) \wedge (\exists X3.(m1_subset_1 X3 k2_arytm_2) \wedge \\
& ((X0 = k4_tarski k6_numbers X2) \wedge ((X1 = k4_tarski k6_numbers X3) \wedge \\
& (r1_arytm_2 X3 X2)))))) \wedge (\neg(\neg(X0 \in k2_arytm_2) \wedge (X1 \in k2_arytm_2)) \wedge \\
& (\neg(\neg(X0 \in k2_zfmisc_1 (k1_tarski k6_numbers) k2_arytm_2) \wedge (X1 \in \\
& k2_zfmisc_1 (k1_tarski k6_numbers) k2_arytm_2)) \wedge (\neg(r1_xxreal_0 \\
& X0 X1) \Leftrightarrow (\neg(\neg(X1 \in k2_arytm_2) \wedge (X0 \in k2_zfmisc_1 (k1_tarski k6_numbers) \\
& k2_arytm_2)) \wedge ((X0 \neq k2_xxreal_0) \wedge (X1 \neq k1_xxreal_0))))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \tag{6}$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_tarski X1 X0 \tag{7}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((\neg(\\
& \neg(X0 \in k2_arytm_2) \wedge ((X1 \in k2_arytm_2) \wedge (\exists X2.(m1_subset_1 \\
& X2 k2_arytm_2) \wedge (\exists X3.(m1_subset_1 X3 k2_arytm_2) \wedge ((X0 = \\
& X2) \wedge ((X1 = X3) \wedge (r1_arytm_2 X2 X3)))))) \wedge (\neg(X0 \in k2_zfmisc_1 (\\
& k1_tarski k6_numbers) k2_arytm_2) \wedge ((X1 \in k2_zfmisc_1 (k1_tarski \\
& k6_numbers) k2_arytm_2) \wedge (\exists X2.(m1_subset_1 X2 k2_arytm_2) \wedge \\
& (\exists X3.(m1_subset_1 X3 k2_arytm_2) \wedge ((X0 = k4_tarski k6_numbers \\
& X2) \wedge ((X1 = k4_tarski k6_numbers X3) \wedge (r1_arytm_2 X3 X2)))))) \wedge \\
& (\neg(X1 \in k2_arytm_2) \wedge (X0 \in k2_zfmisc_1 (k1_tarski k6_numbers) k2_arytm_2)))) \Rightarrow \\
& (r1_xxreal_0 X0 X1)))
\end{aligned}$$