

l19_xreal_0
(TMQK983ZPNn9kkBusYK9Vsi8jgoqizEBSfa)

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Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_arytm_2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_arytm_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k12_arytm_3 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_arytm_3 : \iota$ be given. Let $c5_xreal_0 : \iota$ be given. Let $k1_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c3_xreal_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_arytm_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k2_arytm_2) \Rightarrow ((k7_arytm_2 X0 X1 = k11_arytm_3) \Rightarrow (X0 = k11_arytm_3))) \end{aligned} \quad (1)$$

Assume the following.

$$(k11_arytm_3 \in k2_arytm_2) \wedge (k12_arytm_3 \in k2_arytm_2) \quad (2)$$

Assume the following.

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

Assume the following.

$$k12_arytm_3 = k1_arytm_3 \quad (4)$$

Assume the following.

$$k11_arytm_3 = k1_xboole_0 \quad (5)$$

Assume the following.

$$\begin{aligned} & (c5_xreal_0 = k4_xcmplx_0 np_1) \wedge (k1_arytm_0 c3_xreal_0 c5_xreal_0 = \\ & k6_numbers) \end{aligned} \quad (6)$$

Assume the following.

$$c3_xreal_0 = np_1 \quad (7)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (m1_subset_1 \ X1 \ k1_numbers)) \Rightarrow (m1_subset_1 \ (k1_arytm_0 \ X0 \ X1) \ k1_numbers) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0 \ k12_arytm_3) \wedge ((v3_ordinal1 \ k12_arytm_3) \wedge (m1_subset_1 \ k12_arytm_3 \ k5_arytm_3)) \quad (10)$$

Assume the following.

$$m1_subset_1 \ c5_xreal_0 \ k1_numbers \quad (11)$$

Assume the following.

$$m1_subset_1 \ c3_xreal_0 \ k1_numbers \quad (12)$$

Assume the following.

$$k1_arytm_3 = np_1 \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ k1_numbers) \Rightarrow (\forall X2. (m1_subset_1 \ X2 \ k1_numbers) \Rightarrow (((\\ & \quad X0 \in k2_arytm_2) \wedge (X1 \in k2_arytm_2) \Rightarrow ((X2 = k1_arytm_0 \ X0 \ X1) \Leftrightarrow (\exists X3. \\ & \quad (m1_subset_1 \ X3 \ k2_arytm_2) \wedge (\exists X4. (m1_subset_1 \ X4 \ k2_arytm_2) \wedge \\ & \quad ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k7_arytm_2 \ X3 \ X4)))))) \wedge (((X0 \in k2_arytm_2) \wedge \\ & \quad (X1 \in k2_zfmisc_1 \ (k1_tarski \ k6_numbers) \ k2_arytm_2)) \Rightarrow ((X2 = k1_arytm_0 \ X0 \ X1) \Leftrightarrow \\ & \quad (\exists X3. (m1_subset_1 \ X3 \ k2_arytm_2) \wedge (\exists X4. (\\ & \quad m1_subset_1 \ X4 \ k2_arytm_2) \wedge ((X0 = X3) \wedge ((X1 = k4_tarski \ k6_numbers \\ & \quad X4) \wedge (X2 = k2_arytm_1 \ X3 \ X4)))))) \wedge (((X1 \in k2_arytm_2) \wedge (X0 \in k2_zfmisc_1 \\ & \quad (k1_tarski \ k6_numbers) \ k2_arytm_2)) \Rightarrow ((X2 = k1_arytm_0 \ X0 \ X1) \Leftrightarrow \\ & \quad (\exists X3. (m1_subset_1 \ X3 \ k2_arytm_2) \wedge (\exists X4. (m1_subset_1 \\ & \quad X4 \ k2_arytm_2) \wedge ((X0 = k4_tarski \ k6_numbers \ X3) \wedge ((X1 = X4) \wedge (X2 = \\ & \quad k2_arytm_1 \ X4 \ X3)))))) \wedge (\neg(\neg(X0 \in k2_arytm_2) \wedge (X1 \in k2_arytm_2)) \wedge \\ & \quad ((\neg(X0 \in k2_arytm_2) \wedge (X1 \in k2_zfmisc_1 \ (k1_tarski \ k6_numbers) \\ & \quad k2_arytm_2)) \wedge (\neg(X1 \in k2_arytm_2) \wedge (X0 \in k2_zfmisc_1 \ (k1_tarski \\ & \quad k6_numbers) \ k2_arytm_2)) \wedge (\neg(X2 = k1_arytm_0 \ X0 \ X1) \Leftrightarrow (\exists X3. \\ & \quad (m1_subset_1 \ X3 \ k2_arytm_2) \wedge (\exists X4. (m1_subset_1 \ X4 \ k2_arytm_2) \wedge \\ & \quad ((X0 = k4_tarski \ k6_numbers \ X3) \wedge ((X1 = k4_tarski \ k6_numbers \ X4) \wedge \\ & \quad (X2 = k4_tarski \ k6_numbers \ (k7_arytm_2 \ X3 \ X4))))))))))))) \end{aligned} \quad (14)$$

Theorem 1 $\neg k4_xcmplx_0 \ np_1 \in k2_arytm_2$.