

t91_xxreal_3

(TMH64UVKQBiXghzDPnhH1Nf5cmz4TEfYtqN)

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Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_3 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $k1_xreal_0 : \iota$ be given. Let $k6_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 (k4_xcmplx_0 np_1) = k4_xcmplx_0 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$k4_xcmplx_0 (k4_xcmplx_0 np_1) = np_1 \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k4_xcmplx_0 (k4_xcmplx_0 X0) = X0) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k2_xxreal_3 (k2_xxreal_3 X0) = X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_xreal_0 X0) \wedge \\ & ((v1_xreal_0 X1) \wedge ((v1_xcmplx_0 X2) \wedge (v1_xcmplx_0 X3)))) \Rightarrow (((\\ & X0 = X2) \wedge (X1 = X3)) \Rightarrow (k4_xxreal_3 X0 X1 = k3_xcmplx_0 X2 X3)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow((X0 = X1)\Rightarrow(k2_xxreal_3 X0 = k4_xcmplx_0 X1)) \quad (7)$$

Assume the following.

$$v3_xxreal_0 k2_xxreal_0 \quad (8)$$

Assume the following.

$$v2_xxreal_0 k1_xxreal_0 \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge(v1_xreal_0 (k4_xcmplx_0 X0))) \quad (10)$$

Assume the following.

$$v1_xxreal_0 k2_xxreal_0 \quad (11)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow((v1_xxreal_0 (k2_xxreal_3 X0))\wedge(v1_xreal_0 (k2_xxreal_3 X0))) \quad (12)$$

Assume the following.

$$v1_xxreal_0 k1_xxreal_0 \quad (13)$$

Assume the following.

$$\neg v1_xreal_0 k2_xxreal_0 \quad (14)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 X0)\wedge(v1_xreal_0 X0))\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge(\neg v2_xxreal_0 (k4_xcmplx_0 X0))) \quad (15)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(v1_xxreal_0 (k2_xxreal_3 X0)) \quad (16)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xxreal_0 X2) \Rightarrow (((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow ((X2 = \\
& k4_xxreal_3 X0 X1) \Leftrightarrow (\exists X3.(v1_xcmplx_0 X3) \wedge (\exists X4. \\
& (v1_xcmplx_0 X4) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k3_xcmplx_0 X3 X4)))))) \wedge \\
& ((\neg(\neg(v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \wedge (((v2_xxreal_0 X0) \wedge \\
& (v2_xxreal_0 X1)) \vee ((v3_xxreal_0 X0) \wedge (v3_xxreal_0 X1))) \wedge (\neg(\\
& X2 = k4_xxreal_3 X0 X1) \Leftrightarrow (X2 = k1_xxreal_0)))) \wedge (\neg(\neg(v1_xreal_0 \\
& X0) \wedge (v1_xreal_0 X1)) \wedge (((v2_xxreal_0 X0) \wedge (v3_xxreal_0 X1)) \vee \\
& ((v3_xxreal_0 X0) \wedge (v2_xxreal_0 X1)))) \wedge (\neg(X2 = k4_xxreal_3 X0 X1) \Leftrightarrow \\
& (X2 = k2_xxreal_0)))) \wedge (\neg(\neg(v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \wedge \\
& ((\neg(\neg(v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \wedge (((v2_xxreal_0 X0) \wedge (\\
& v2_xxreal_0 X1)) \vee ((v3_xxreal_0 X0) \wedge (v3_xxreal_0 X1)))) \wedge (\neg \\
& (\neg(v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \wedge (((v2_xxreal_0 X0) \wedge (v3_xxreal_0 \\
& X1)) \vee ((v3_xxreal_0 X0) \wedge (v2_xxreal_0 X1)))) \wedge (\neg(X2 = k4_xxreal_3 \\
& X0 X1) \Leftrightarrow (X2 = k6_numbers)))))))))
\end{aligned} \tag{17}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\
& (v1_xreal_0 X0) \Rightarrow ((X1 = k2_xxreal_3 X0) \Leftrightarrow (\exists X2.(v1_xcmplx_0 \\
& X2) \wedge ((X0 = X2) \wedge (X1 = k4_xcmplx_0 X2)))))) \wedge ((X0 = k1_xxreal_0) \Rightarrow \\
& ((X1 = k2_xxreal_3 X0) \Leftrightarrow (X1 = k2_xxreal_0))) \wedge (\neg(\neg(v1_xreal_0 X0) \wedge \\
& ((X0 \neq k1_xxreal_0) \wedge (\neg(X1 = k2_xxreal_3 X0) \Leftrightarrow (X1 = k1_xxreal_0))))))
\end{aligned} \tag{18}$$

Assume the following.

$$k1_xxreal_0 = k1_numbers \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (k4_xxreal_3 X0 X1 = k4_xxreal_3 X1 X0) \tag{20}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \tag{21}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \tag{22}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \tag{23}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (k4_xxreal_3 (k2_xxreal_3 np_1) \\
& X0 = k2_xxreal_3 X0)
\end{aligned}$$