

l6_complex1 (TMEqsvn- nPmKKzNyRYz3fTbqxigCxubHEWFK)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k5_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_complex1 : \iota \Rightarrow \iota$ be given. Let $k1_complex1 : \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (\neg k5_funct_4 k1_numbers k6_numbers np_1 X0 X1 \in \\ k1_numbers)) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((X0 \neq X1) \Rightarrow (k1_funct_1 \\ (k4_funct_4 X0 X1 X2 X3) X0 = X2)) \wedge (k1_funct_1 (k4_funct_4 X0 X1 X2 \\ X3) X1 = X3) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{4}$$

Assume the following.

$$\neg v1_xboole_0 np_1 \tag{5}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 X0)\wedge((m1_subset_1 X3 X0)\wedge(m1_subset_1 X4 X0)))\Rightarrow(k5_funct_4 X0 X1 X2 X3 X4 = k4_funct_4 X1 X2 X3 X4) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(k4_complex1 X0 = k2_complex1 X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(k3_complex1 X0 = k1_complex1 X0) \quad (9)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (10)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(m1_subset_1 X1 k1_numbers))\Rightarrow(m1_subset_1 (k5_arytm_0 X0 X1) k2_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k4_complex1 X0) k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\forall X1.(m1_subset_1 X1 k1_numbers)\Rightarrow(((X1 = k6_numbers)\Rightarrow(k5_arytm_0 X0 X1 = X0))\wedge((X1 \neq k6_numbers)\Rightarrow(k5_arytm_0 X0 X1 = k5_funct_4 k1_numbers k6_numbers np_1 X0 X1)))) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.((X0 \in k1_numbers)\Rightarrow((X1 = k2_complex1 X0)\Leftrightarrow(X1 = k6_numbers)))\wedge((\neg X0 \in k1_numbers)\Rightarrow(((X1 = k2_complex1 X0)\Leftrightarrow(\exists X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 np_2 k1_numbers)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 np_2 k1_numbers))))))\wedge((X0 = X2)\wedge(X1 = k1_funct_1 X2 np_1)))))) \quad (15)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.((X0 \in k1_numbers)\Rightarrow((X1 = k1_complex1 X0)\Leftrightarrow(X1 = X0)))\wedge((\neg X0 \in k1_numbers)\Rightarrow(((X1 = k1_complex1 X0)\Leftrightarrow(\exists X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 np_2 k1_numbers)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 np_2 k1_numbers))))))\wedge((X0 = X2)\wedge(X1 = k1_funct_1 X2 k6_numbers)))))) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (18)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((k3_complex1 (k5_arytm_0 X0 X1) = X0) \wedge (k4_complex1 (k5_arytm_0 X0 X1) = X1)))$$