

l30_complex1

(TMEsaTEKbw6VdvgAPRS6HCy4ZTd2ENNqLam)

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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 $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k2_complex1 : \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(k3_complex1 \ k7_complex1 = k6_numbers) \wedge (k4_complex1 \ k7_complex1 = np_1) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k3_xcmplx_0 \ np_1 \ X0 = X0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 \ X0 \ X1) \Rightarrow ((v1_xboole_0 \ X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k3_xcmplx_0 \ X0 \ k6_numbers = k6_numbers) \quad (4)$$

Assume the following.

$$((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \quad (6)$$

Assume the following.

$$k7_complex1 = k1_xcmplx_0 \quad (7)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow ((\\ k3_complex1 (k3_xcmplx_0 X0 X1) = k9_real_1 (k8_real_1 (k3_complex1 \\ X0) (k3_complex1 X1)) (k8_real_1 (k4_complex1 X0) (k4_complex1 \\ X1))) \wedge (k4_complex1 (k3_xcmplx_0 X0 X1) = k7_real_1 (k8_real_1 \\ (k3_complex1 X0) (k4_complex1 X1)) (k8_real_1 (k3_complex1 X1) \\ (k4_complex1 X0)))))) \end{aligned} \quad (9)$$

Assume the following.

$$v1_xcmplx_0 k1_xcmplx_0 \quad (10)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k4_complex1 X0) k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k3_complex1 X0) k1_numbers) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.((X0 \in k1_numbers) \Rightarrow (\\ (X1 = k2_complex1 X0) \Leftrightarrow (X1 = k6_numbers))) \wedge ((\neg X0 \in k1_numbers) \Rightarrow \\ ((X1 = k2_complex1 X0) \Leftrightarrow (\exists X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ X2 np_2 k1_numbers) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ np_2 k1_numbers)))))) \wedge ((X0 = X2) \wedge (X1 = k1_funct_1 X2 np_1)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k8_real_1 X0 X1 = k8_real_1 X1 X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k3_xcmplx_0 X0 X1 = k3_xcmplx_0 X1 X0) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (17)$$

Assume the following.

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

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k3_complex1 (k3_xcmplx_0 X0 k7_complex1) = k6_numbers)$$