

l27_complex1 (TMGX-
Gia8ngaeH6wj8NR6UcpqYP52HRNH2Mk)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k5_arytm_0 (k3_complex1 X0) (k4_complex1 X0) = X0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2.(v1_xcmplx_0 X2) \Rightarrow ((X2 = k3_xcmplx_0 X0 X1) \Rightarrow (k4_complex1 X2 = k7_real_1 (k8_real_1 (k3_complex1 X0) (k4_complex1 X1)) (k8_real_1 (k4_complex1 X0) (k3_complex1 X1))))))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2.(v1_xcmplx_0 X2) \Rightarrow ((X2 = k3_xcmplx_0 X0 X1) \Rightarrow (k3_complex1 X2 = k9_real_1 (k8_real_1 (k3_complex1 X0) (k3_complex1 X1)) (k8_real_1 (k4_complex1 X0) (k4_complex1 X1))))))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k4_complex1 X0) k1_numbers) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k3_complex1 X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k8_real_1 X0 X1 = k8_real_1 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.(v1_xcmplx_0 X1)\Rightarrow(k3_xcmplx_0 \\ X0 X1 = k5_arytm_0 (k9_real_1 (k8_real_1 (k3_complex1 X0) (k3_complex1 \\ X1)) (k8_real_1 (k4_complex1 X0) (k4_complex1 X1))) (k7_real_1 \\ (k8_real_1 (k3_complex1 X0) (k4_complex1 X1)) (k8_real_1 (k3_complex1 \\ X1) (k4_complex1 X0)))))) \end{aligned}$$