

l28_complex1

(TMKZhL7FniKxVqqkvm7Cr1wx5WMfmPj4M8z)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_complex1 : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((X2 = k3_xcmplx_0 X0 X1) \Rightarrow (k4_complex1 X2 = k7_real_1 \\ & (k8_real_1 (k3_complex1 X0) (k4_complex1 X1)) (k8_real_1 (k4_complex1 \\ & X0) (k3_complex1 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((X2 = k3_xcmplx_0 X0 X1) \Rightarrow (k3_complex1 X2 = k9_real_1 \\ & (k8_real_1 (k3_complex1 X0) (k3_complex1 X1)) (k8_real_1 (k4_complex1 \\ & X0) (k4_complex1 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k4_complex1 X0) k1_numbers) \tag{4}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k3_complex1 X0) k1_numbers) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k8_real_1 X0 X1 = k8_real_1 X1 X0) \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (7)$$

Theorem 1

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