

t25_complex1

(TMVEaKovm74EtTd8G4YuseXsxM54aDMEXhb)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k2_real_1 : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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 $np_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_complex1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow & ((k4_complex1 X0 = k6_numbers) \Rightarrow (\\ & (k3_complex1 X0 = k6_numbers) \vee ((k3_complex1 (k5_xcmplx_0 X0) = \\ & k2_real_1 (k3_complex1 X0)) \wedge (k4_complex1 (k5_xcmplx_0 X0) = k6_numbers)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow & (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\\ & (k4_complex1 X0 = k6_numbers) \wedge (k4_complex1 X1 = k6_numbers)) \Rightarrow \\ & ((k3_complex1 (k3_xcmplx_0 X0 X1) = k8_real_1 (k3_complex1 X0) \\ & (k3_complex1 X1)) \wedge (k4_complex1 (k3_xcmplx_0 X0 X1) = k6_numbers)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k7_xcmplx_0 np_1 X0 = k5_xcmplx_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1_xboole_0 \text{ np_}0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k8_real_1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(k2_real_1 X0 = k5_xcmplx_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k13_complex1 X0 X1 = k7_xcmplx_0 X0 X1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(v1_xcmplx_0 (k7_xcmplx_0 X0 X1)) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(v1_xreal_0 (k1_complex1 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k3_complex1 X0) k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.(v1_xcmplx_0 X1)\Rightarrow(k7_xcmplx_0 X0 X1 = k3_xcmplx_0 X0 (k5_xcmplx_0 X1))) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (16)$$

Theorem 1

$$\begin{aligned} &\forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.(v1_xcmplx_0 X1)\Rightarrow((\\ &(k4_complex1 X0 = k6_numbers)\wedge(k4_complex1 X1 = k6_numbers))\Rightarrow \\ &((k3_complex1 X1 = k6_numbers)\vee((k3_complex1 (k13_complex1 X0 \\ &X1) = k13_complex1 (k3_complex1 X0) (k3_complex1 X1))\wedge(k4_complex1 \\ &(k13_complex1 X0 X1) = k6_numbers)))))) \end{aligned}$$