

t12_series_5

(TMaizeWpTY8EdVz2TkivcehCDDVi8wGtQLi)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k8_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_square_1 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_square_1 : \iota \Rightarrow \iota$ 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 $k2_numbers : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_xreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow (\forall X1. & \\ (v1_xreal_0 X1) \wedge (v2_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 (k13_complex1 & \\ (k2_xcmplx_0 X0 X1) np_2) (k6_square_1 (k13_complex1 (k2_xcmplx_0 & \\ (k3_square_1 X0) (k3_square_1 X1)) np_2)))) & \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_xreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow (\forall X1. & \\ (v1_xreal_0 X1) \wedge (v2_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 (k13_complex1 & \\ np_2 (k8_complex1 (k13_complex1 np_1 X0) (k13_complex1 np_1 & \\ X1))) (k13_complex1 (k2_xcmplx_0 X0 X1) np_2))) & \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge & \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) & \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge & \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) & \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((m1_subset_1 X0 k2_numbers) \wedge (m1_subset_1 & \\ X1 k2_numbers)) \Rightarrow (k8_complex1 X0 X1 = k2_xcmplx_0 X0 X1) & \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k13_complex1 X0 X1 = k7_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\forall X2.(v1_xreal_0 X2)\Rightarrow(((r1_xxreal_0 X0 X1)\wedge(r1_xxreal_0 X1 X2))\Rightarrow(r1_xxreal_0 X0 X2)))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k7_xcmplx_0 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k2_xcmplx_0 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xreal_0 (k3_square_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xreal_0 (k6_square_1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(m1_subset_1 (k13_complex1 X0 X1) k2_numbers) \quad (12)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (15)$$

Theorem 1

$$\forall X0.((v1_xreal_0 X0)\wedge(v2_xxreal_0 X0))\Rightarrow(\forall X1.(v1_xreal_0 X1)\wedge(v2_xxreal_0 X1))\Rightarrow(r1_xxreal_0 (k13_complex1 np_2 (k8_complex1 (k13_complex1 np_1 X0) (k13_complex1 np_1 X1))) (k6_square_1 (k13_complex1 (k2_xcmplx_0 (k3_square_1 X0) (k3_square_1 X1)) np_2))))$$