

t24_int_1 (TMJM-
LqrTa7RT5aLKxbtQfgDrX281NkVY1um)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow ((\neg r1_xxreal_0 X1 X0) \Rightarrow (r1_xxreal_0 (k3_real_1 X0 np_1) X1))) \quad (1)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k3_real_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (r1_xxreal_0 (k2_xcmplx_0 X0 X2) (k2_xcmplx_0 X1 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow (r1_xxreal_0 X0 X2)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k2_xcmplx_0 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_int_1 X0)\Rightarrow(v1_xreal_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_int_1 X1)\Rightarrow(\forall X2. \\ & (v1_int_1 X2)\Rightarrow(((r1_xxreal_0 X0 X1)\wedge(r1_xxreal_0 X0 X2))\Rightarrow((r1_xxreal_0 \\ & (k3_real_1 X0 np_1) X1)\vee((r1_xxreal_0 (k3_real_1 X0 np_1) X2)\vee \\ & (X1 = X2)))))) \end{aligned}$$