

t1_matrixr1 (TMbQDqGDkCMzK- mVwd7ABmDAMusRvpU32Ztr)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (k9_binop_2 X0 X1 = k2_xcmplx_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k7_real_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v2_rlvect_1 X0) \wedge (l1_algstr_0 X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k3_rlvect_1 X0 X1 X2 = k1_algstr_0 X0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X0 (u1_struct_0 k2_vectsp_1)) \wedge ((m1_subset_1 X1 (u1_struct_0 k2_vectsp_1)) \wedge ((v1_xreal_0 X2) \wedge (v1_xreal_0 X3)))) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k1_algstr_0 k2_vectsp_1 X0 X1 = k9_binop_2 X2 X3)) \quad (4)$$

Assume the following.

$$\begin{aligned}
& (\neg v6_struct_0\ k2_vectsp_1) \wedge ((v13_algstr_0\ k2_vectsp_1) \wedge ((\\
& v33_algstr_0\ k2_vectsp_1) \wedge ((v36_algstr_0\ k2_vectsp_1) \wedge ((v2_rlvect_1 \\
& k2_vectsp_1) \wedge ((v3_rlvect_1\ k2_vectsp_1) \wedge ((v4_rlvect_1\ k2_vectsp_1) \wedge \\
& ((v3_group_1\ k2_vectsp_1) \wedge ((v5_group_1\ k2_vectsp_1) \wedge ((v3_vectsp_1 \\
& k2_vectsp_1) \wedge ((v5_vectsp_1\ k2_vectsp_1) \wedge (v6_vectsp_1\ k2_vectsp_1)))))))))) \\
& \tag{5}
\end{aligned}$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0) \Rightarrow ((l2_algstr_0\ X0) \wedge (l5_algstr_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l2_algstr_0\ X0) \Rightarrow ((l2_struct_0\ X0) \wedge (l1_algstr_0\ X0)) \tag{7}$$

Assume the following.

$$(v36_algstr_0\ k2_vectsp_1) \wedge (l6_algstr_0\ k2_vectsp_1) \tag{8}$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xreal_0\ X0) \tag{9}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1\ k1_numbers) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ k2_vectsp_1)) \Rightarrow \\
& (\forall X3.(m1_subset_1\ X3\ (u1_struct_0\ k2_vectsp_1)) \Rightarrow (((X0 = \\
& X2) \wedge (X1 = X3)) \Rightarrow (k7_real_1\ X0\ X1 = k3_rlvect_1\ k2_vectsp_1\ X2\ X3))))))
\end{aligned}$$