

l32_euclmetr (TMX-
aHf6fg54pjCTWqBFGy6zsNFGPFsv6AKY)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & ((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge ((v2_rlvect_1 X2) \wedge ((\\ & v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge ((v5_rlvect_1 X2) \wedge ((v6_rlvect_1 \\ & X2) \wedge ((v7_rlvect_1 X2) \wedge ((v8_rlvect_1 X2) \wedge (l1_rlvect_1 X2)))))))))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 X2)) \Rightarrow (k1_rlvect_1 X2 \\ & X3 (k6_xcmplx_0 X0 X1) = k5_algstr_0 X2 (k1_rlvect_1 X2 X3 X0) (k1_rlvect_1 \\ & X2 X3 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k9_real_1 X0 X1 = k6_xcmplx_0 X0 X1) \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow \\
& (\forall X5.(m1_subset_1 X5 k1_numbers) \Rightarrow (k5_algstr_0 X0 (k3_rlvect_1 \\
& X0 X1 (k1_rlvect_1 X0 X2 X4) (k3_rlvect_1 X0 X3 (k1_rlvect_1 X0 X2 \\
& X5)) = k3_rlvect_1 X0 (k5_algstr_0 X0 X1 X3) (k1_rlvect_1 X0 X2 (k9_real_1 \\
& X4 X5))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 \\
& X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (v1_xreal_0 X2))) \Rightarrow (\\
& m1_subset_1 (k1_rlvect_1 X0 X1 X2) (u1_struct_0 X0))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow (\forall X5. \\
& (m1_subset_1 X5 k1_numbers) \Rightarrow (\forall X6.(m1_subset_1 X6 k1_numbers) \Rightarrow \\
& (k5_algstr_0 X0 (k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 \\
& X0 X2 X4) (k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X5) (k1_rlvect_1 X0 \\
& X2 X6)) = k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 (k9_real_1 X3 X5) (k1_rlvect_1 \\
& X0 X2 (k9_real_1 X4 X6))))))))))
\end{aligned}$$