

t29_geomtrap
(TMMwEuoppn9o87DQTFpVi2ExRjKuJ1E1dZ)

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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 $k4_geomtrap : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_geomtrap : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_geomtrap : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$v3_membered \ k1_numbers \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ & X0) \wedge ((v13_algstr_0 \ X0) \wedge ((v2_rlvect_1 \ X0) \wedge ((v3_rlvect_1 \ X0) \wedge \\ & ((v4_rlvect_1 \ X0) \wedge ((v5_rlvect_1 \ X0) \wedge ((v6_rlvect_1 \ X0) \wedge ((v7_rlvect_1 \\ & X0) \wedge ((v8_rlvect_1 \ X0) \wedge (l1_rlvect_1 \ X0)))))))))) \wedge ((m1_subset_1 \\ & X1 \ (u1_struct_0 \ X0)) \wedge ((m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \\ & X3 \ (u1_struct_0 \ X0)))) \Rightarrow (m1_subset_1 \ (k3_geomtrap \ X0 \ X1 \ X2 \ X3) \\ & \quad k1_numbers) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ & X0) \wedge ((v13_algstr_0 \ X0) \wedge ((v2_rlvect_1 \ X0) \wedge ((v3_rlvect_1 \ X0) \wedge \\ & ((v4_rlvect_1 \ X0) \wedge ((v5_rlvect_1 \ X0) \wedge ((v6_rlvect_1 \ X0) \wedge ((v7_rlvect_1 \\ & X0) \wedge ((v8_rlvect_1 \ X0) \wedge (l1_rlvect_1 \ X0)))))))))) \wedge ((m1_subset_1 \\ & X1 \ (u1_struct_0 \ X0)) \wedge ((m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \\ & X3 \ (u1_struct_0 \ X0)))) \Rightarrow (m1_subset_1 \ (k2_geomtrap \ X0 \ X1 \ X2 \ X3) \\ & \quad k1_numbers) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& X0)) \Rightarrow (k4_geomtrap X0 X1 X2 X3 X4 = k7_real_1 (k8_real_1 (k2_geomtrap \\
& X0 X1 X2 X3) (k2_geomtrap X0 X1 X2 X4)) (k8_real_1 (k3_geomtrap X0 \\
& X1 X2 X3) (k3_geomtrap X0 X1 X2 X4)))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k8_real_1 X0 X1 = k8_real_1 X1 X0) \tag{5}$$

Assume the following.

$$\forall X0. (v3_membered X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& X0)) \Rightarrow (k4_geomtrap X0 X1 X2 X3 X4 = k4_geomtrap X0 X1 X2 X4 X3))))))
\end{aligned}$$