

t20_sprect_2
(TMdUscSe7bkdeoSpfvy1jnioaiur2iZjRqa)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k7_pscomp_1 : \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ 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 $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((X2 \in k1_rltopsp1 (k15_euclid np_2) X0 X1) \wedge (k18_euclid X2 = k18_euclid \\
& X0)) \Rightarrow ((k18_euclid X0 = k18_euclid X1) \vee (X2 = X0))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& ((r1_xxreal_0 (k18_euclid X0) (k18_euclid X1)) \Rightarrow (k7_pscomp_1 \\
& (k1_rltopsp1 (k15_euclid np_2) X0 X1) = k18_euclid X1)))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((r1_xxreal_0 (k18_euclid X0) (k18_euclid X1)) \wedge (X2 \in k1_rltopsp1 \\
& (k15_euclid np_2) X0 X1)) \Rightarrow ((r1_xxreal_0 (k18_euclid X0) (k18_euclid \\
& X2)) \wedge (r1_xxreal_0 (k18_euclid X2) (k18_euclid X1))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((v2_pre_topc (k15_euclid X0)) \wedge \\
& ((v13_algstr_0 (k15_euclid X0)) \wedge ((v2_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v3_rlvect_1 (k15_euclid X0)) \wedge ((v4_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v5_rlvect_1 (k15_euclid X0)) \wedge ((v6_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v7_rlvect_1 (k15_euclid X0)) \wedge ((v8_rlvect_1 (k15_euclid X0)) \wedge \\
& (v5_rltopsp1 (k15_euclid X0))))))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k15_euclid X0)) \wedge \\
& (v5_rltopsp1 (k15_euclid X0)))
\end{aligned} \tag{7}$$

Assume the following.

$$v3_membered k1_numbers \tag{8}$$

Assume the following.

$$\forall X0.(l1_rltopsp1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l1_pre_topc X0)) \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (m1_subset_1 (k18_euclid X0) k1_numbers)
\end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((v5_rltopsp1 (k15_euclid X0)) \wedge \\
& (l1_rltopsp1 (k15_euclid X0)))
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow((r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v13_algstr_0 \\ &X0)\wedge((v2_rlvect_1 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge \\ &((v5_rlvect_1 X0)\wedge((v6_rlvect_1 X0)\wedge((v7_rlvect_1 X0)\wedge((v8_rlvect_1 \\ &X0)\wedge(l1_rlvect_1 X0))))))))))\wedge((m1_subset_1 X1 (u1_struct_0 \\ &X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0)))\Rightarrow(k1_rltopsp1 X0 X1 X2 = \\ &k1_rltopsp1 X0 X2 X1) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (14)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (15)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow (v1_xxreal_0 X1)) \quad (16)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ &(\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ &(\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ &(\neg(X1 \in k1_rltopsp1 (k15_euclid np_2) X0 X2)\wedge((r1_xxreal_0 (k18_euclid \\ &X1) (k18_euclid X0))\wedge((r1_xxreal_0 (k18_euclid X1) (k18_euclid \\ &X2))\wedge((X0\neq X1)\wedge((X1\neq X2)\wedge(\neg(k18_euclid X0 = k18_euclid X1)\wedge(k18_euclid \\ &X2 = k18_euclid X1)))))))))) \end{aligned}$$