

t40_sprect_3

(TMb2MB85c9xC7PSV8hDbMSXXWJaU6XHLxpw)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finseq_6 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v1_goboard5 : \iota \Rightarrow o$ be given. Let $v1_sprect_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k9_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k7_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k2_goboard9 : \iota \Rightarrow \iota$ be given. Let $k3_goboard9 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_6 X0 (u1_struct_0 \\
 & (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge (v2_topreal1 X0) \wedge (\\
 & (v1_goboard5 X0) \wedge (v1_sprect_1 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
 & (k15_euclid np_2)))))) \Rightarrow ((k2_goboard9 X0 = ReplSep (toset \\
 & (\lambda X1 : \iota. m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \\
 & (\lambda X1 : \iota. \neg (r1_xxreal_0 (k6_pscomp_1 (k3_topreal1 np_2 X0)) \\
 & (k17_euclid X1)) \wedge ((r1_xxreal_0 (k17_euclid X1) (k8_pscomp_1 \\
 & (k3_topreal1 np_2 X0))) \wedge ((r1_xxreal_0 (k9_pscomp_1 (k3_topreal1 \\
 & np_2 X0) (k18_euclid X1)) \wedge (r1_xxreal_0 (k18_euclid X1) (k7_pscomp_1 \\
 & (k3_topreal1 np_2 X0)))))) (\lambda X1 : \iota. X1)) \wedge (k3_goboard9 X0 = \\
 & ReplSep (toset (\lambda X1 : \iota. m1_subset_1 X1 (u1_struct_0 (k15_euclid \\
 & np_2)))) (\lambda X1 : \iota. \neg (r1_xxreal_0 (k17_euclid X1) (k6_pscomp_1 \\
 & (k3_topreal1 np_2 X0))) \wedge ((\neg r1_xxreal_0 (k8_pscomp_1 (k3_topreal1 \\
 & np_2 X0) (k17_euclid X1)) \wedge ((\neg r1_xxreal_0 (k18_euclid X1) (k9_pscomp_1 \\
 & (k3_topreal1 np_2 X0))) \wedge (\neg r1_xxreal_0 (k7_pscomp_1 (k3_topreal1 \\
 & np_2 X0) (k18_euclid X1)))))) (\lambda X1 : \iota. X1)))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_finseq_6 X0 (u1_struct_0 \\ & (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 X0) \wedge (\\ & (v1_goboard5 X0) \wedge ((v1_sprect_1 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & (k15_euclid np_2))) \Rightarrow ((\neg (r1_xxreal_0 (k6_pscomp_1 (k3_topreal1 \\ np_2 X0)) (k17_euclid X1)) \wedge ((r1_xxreal_0 (k17_euclid X1) (k8_pscomp_1 \\ & (k3_topreal1 np_2 X0))) \wedge ((r1_xxreal_0 (k9_pscomp_1 (k3_topreal1 \\ np_2 X0)) (k18_euclid X1)) \wedge (r1_xxreal_0 (k18_euclid X1) (k7_pscomp_1 \\ & (k3_topreal1 np_2 X0)))))) \Rightarrow (X1 \in k2_goboard9 X0))) \end{aligned}$$