

t28_sprect_3 (TMFFPLx- PXgg1MMR6xhAb4mpg3JmYngWg4Ry)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ 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 $v2_goboard5 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_goboard2 : \iota \Rightarrow \iota$ be given. Let $k20_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k7_jordan5d : \iota \Rightarrow \iota$ be given. Let $k8_jordan5d : \iota \Rightarrow \iota$ be given. Let $k5_jordan5d : \iota \Rightarrow \iota$ be given. Let $k6_jordan5d : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
& X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
& X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow ((r1_xxreal_0 np_1 (k7_jordan5d \\
& X0)) \wedge ((r1_xxreal_0 (k7_jordan5d X0) (k3_finseq_1 (k2_goboard2 \\
& X0))) \wedge ((r1_xxreal_0 np_1 (k8_jordan5d X0)) \wedge ((r1_xxreal_0 (\\
& k8_jordan5d X0) (k3_finseq_1 (k2_goboard2 X0))) \wedge ((r1_xxreal_0 \\
& np_1 (k5_jordan5d X0)) \wedge ((r1_xxreal_0 (k5_jordan5d X0) (k3_finseq_1 \\
& (k2_goboard2 X0))) \wedge ((r1_xxreal_0 np_1 (k6_jordan5d X0)) \wedge ((r1_xxreal_0 \\
& (k6_jordan5d X0) (k3_finseq_1 (k2_goboard2 X0))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (r1_xxreal_0 X0 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (\neg r1_xxreal_0 (k8_jordan5d X0) \\ & (k7_jordan5d X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\neg v1_finset_1 k4_ordinal1 \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1) \wedge (v1_finseq_1 X1)) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m1_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (m2_subset_1 (k8_jordan5d X0) k1_numbers \\ & k5_numbers) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ &X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ &X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m1_finseq_1 X0 (u1_struct_0 \\ &(k15_euclid np_2)))))))))) \Rightarrow (m2_subset_1 (k7_jordan5d X0) k1_numbers \\ &k5_numbers) \end{aligned} \quad (11)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge (m1_finseq_1 X0 (u1_struct_0 (\\ &k15_euclid np_2)))) \Rightarrow ((v1_matrix_1 (k2_goboard2 X0)) \wedge (m2_finseq_1 \\ &(k2_goboard2 X0) (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ &X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ &X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ &(k15_euclid np_2)))))))))) \Rightarrow (\forall X1. (m2_subset_1 X1 k1_numbers \\ &k5_numbers) \Rightarrow ((X1 = k7_jordan5d X0) \Leftrightarrow ((k4_tarski X1 (k1_matrix_1 \\ &(k2_goboard2 X0)) \in k2_matrix_1 (k2_goboard2 X0)) \wedge (k3_matrix_1 \\ &(u1_struct_0 (k15_euclid np_2)) (k2_goboard2 X0) X1 (k1_matrix_1 \\ &(k2_goboard2 X0)) = k20_pscomp_1 (k3_topreal1 np_2 X0)))))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (16)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (17)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (v1_finset_1 X0) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (\exists X1. (m2_subset_1 X1 k1_numbers \\ & k5_numbers) \wedge ((r1_xxreal_0 np_1 X1) \wedge ((\neg r1_xxreal_0 (k3_finseq_1 \\ & (k2_goboard2 X0)) X1) \wedge (k20_pscomp_1 (k3_topreal1 np_2 X0) = k3_matrix_1 \\ & (u1_struct_0 (k15_euclid np_2)) (k2_goboard2 X0) X1 (k1_matrix_1 \\ & (k2_goboard2 X0)))))) \end{aligned}$$