

t18_topreal4 (TMYJR- mDpw5HatGHyW9LbKF7iUrzhVEsaePM)

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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 $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v4_topreal1 : \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_topreal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m2_finseq_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\neg(X0 \neq k7_partfun1 (\\
& u1_struct_0 (k15_euclid np_2)) X1 np_1) \wedge ((v4_topreal1 X1) \wedge \\
& ((X0 \in k2_topreal1 np_2 X1 X2) \wedge (\forall X3.(m2_finseq_1 X3 (u1_struct_0 \\
& (k15_euclid np_2)))) \Rightarrow (\neg(v4_topreal1 X3) \wedge ((k7_partfun1 (u1_struct_0 \\
& (k15_euclid np_2)) X3 np_1 = k7_partfun1 (u1_struct_0 (k15_euclid \\
& np_2)) X1 np_1) \wedge ((k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\
& X3 (k3_finseq_1 X3) = X0) \wedge ((r1_topreal4 (k3_topreal1 np_2 X3) \\
& (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X1 np_1) X0) \wedge \\
& (r1_tarski (k3_topreal1 np_2 X3) (k3_topreal1 np_2 X1) \wedge (k3_topreal1 \\
& np_2 X3 = k4_subset_1 (u1_struct_0 (k15_euclid np_2)) (k3_topreal1 \\
& np_2 (k17_finseq_1 (u1_struct_0 (k15_euclid np_2)) X2 X1)) (\\
& k1_rltopsp1 (k15_euclid np_2) (k7_partfun1 (u1_struct_0 (k15_euclid \\
& np_2)) X1 X2) X0)))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m2_finseq_1\ X1\ (u1_struct_0 \\ (k15_euclid\ X0))) \Rightarrow (k3_topreal1\ X0\ X1 = k3_tarski\ (ReplSep\ (toset \\ (\lambda X2 : \iota.m1_subset_1\ X2\ k5_numbers))\ (\lambda X2 : \iota.(r1_xxreal_0 \\ np_1\ X2) \wedge (r1_xxreal_0\ (k2_nat_1\ X2\ np_1)\ (k3_finseq_1\ X1)))) \\ (\lambda X2 : \iota.k2_topreal1\ X0\ X1\ X2)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v7_ordinal1\ X1)) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ (\forall X1.(m2_finseq_1\ X1\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ (\neg(X0 \neq k7_partfun1\ (u1_struct_0\ (k15_euclid\ np_2))\ X1\ np_1) \wedge \\ ((v4_topreal1\ X1) \wedge ((X0 \in k3_topreal1\ np_2\ X1) \wedge (\forall X2.(m2_finseq_1 \\ X2\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow (\neg(v4_topreal1\ X2) \wedge ((k7_partfun1 \\ (u1_struct_0\ (k15_euclid\ np_2))\ X2\ np_1 = k7_partfun1\ (u1_struct_0 \\ (k15_euclid\ np_2))\ X1\ np_1) \wedge ((k7_partfun1\ (u1_struct_0\ (k15_euclid \\ np_2))\ X2\ (k3_finseq_1\ X2) = X0) \wedge ((r1_topreal4\ (k3_topreal1\ np_2 \\ X2)\ (k7_partfun1\ (u1_struct_0\ (k15_euclid\ np_2))\ X1\ np_1)\ X0) \wedge \\ (r1_tarski\ (k3_topreal1\ np_2\ X2)\ (k3_topreal1\ np_2\ X1)))))))))) \end{aligned}$$