

t41_pscomp_1 (TMU-
JJQLDp3KZRaSihUnJ7ozXNBu8gX9cZRK)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k21_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k11_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k12_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k7_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((r1_xxreal_0 (k17_euclid X0) (k17_euclid X1)) \wedge ((r1_xxreal_0 \\
& (k17_euclid X1) (k17_euclid X2)) \wedge ((k18_euclid X0 = k18_euclid \\
& X1) \wedge (k18_euclid X1 = k18_euclid X2)))) \Rightarrow (X1 \in k1_rltopsp1 (k15_euclid \\
& np_2) X0 X2)))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& (k15_euclid X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (\\
& k15_euclid X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\
& X0))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\
& (((X3 \in k1_rltopsp1 (k15_euclid X0) X1 X2) \wedge (X4 \in k1_rltopsp1 (k15_euclid \\
& X0) X1 X2)) \Rightarrow (r1_tarski (k1_rltopsp1 (k15_euclid X0) X3 X4) (k1_rltopsp1 \\
& (k15_euclid X0) X1 X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((k17_euclid (k19_euclid X0 X1) = X0) \wedge (k18_euclid (k19_euclid X0 X1) = X1))) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ & ((r1_xxreal_0 (k17_euclid (k11_pscomp_1 X0)) (k17_euclid (k20_pscomp_1 \\ & X0))) \wedge ((r1_xxreal_0 (k17_euclid (k11_pscomp_1 X0)) (k17_euclid \\ & (k21_pscomp_1 X0))) \wedge ((r1_xxreal_0 (k17_euclid (k11_pscomp_1 \\ & X0)) (k17_euclid (k12_pscomp_1 X0))) \wedge ((r1_xxreal_0 (k17_euclid \\ & (k20_pscomp_1 X0)) (k17_euclid (k21_pscomp_1 X0))) \wedge ((r1_xxreal_0 \\ & (k17_euclid (k20_pscomp_1 X0)) (k17_euclid (k12_pscomp_1 X0))) \wedge \\ & (r1_xxreal_0 (k17_euclid (k21_pscomp_1 X0)) (k17_euclid (k12_pscomp_1 \\ & X0))))))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow ((k18_euclid (k11_pscomp_1 X0) = k18_euclid (k20_pscomp_1 \\ & X0)) \wedge ((k18_euclid (k11_pscomp_1 X0) = k18_euclid (k21_pscomp_1 \\ & X0)) \wedge ((k18_euclid (k20_pscomp_1 X0) = k18_euclid (k21_pscomp_1 \\ & X0)) \wedge ((k18_euclid (k20_pscomp_1 X0) = k18_euclid (k12_pscomp_1 \\ & X0)) \wedge (k18_euclid (k21_pscomp_1 X0) = k18_euclid (k12_pscomp_1 \\ & X0)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \tag{6}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k8_pscomp_1 X0) k1_numbers) \tag{8}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k7_pscomp_1 X0) k1_numbers) \tag{9}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k6_pscomp_1 X0) k1_numbers) \tag{10}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (m1_subset_1 (k21_pscomp_1 X0) (u1_struct_0 (k15_euclid \\ & np_2))) \end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k20_pscomp_1 X0) (u1_struct_0 (k15_euclid np_2))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k19_euclid X0 X1) (u1_struct_0 (k15_euclid np_2))) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k12_pscomp_1 X0 = k19_euclid (k8_pscomp_1 X0) (k7_pscomp_1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k11_pscomp_1 X0 = k19_euclid (k6_pscomp_1 X0) (k7_pscomp_1 X0)) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (16)$$

Assume the following.

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

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (r1_tarski (k1_rltopsp1 (k15_euclid np_2) (k20_pscomp_1 X0) (k21_pscomp_1 X0)) (k1_rltopsp1 (k15_euclid np_2) (k11_pscomp_1 X0) (k12_pscomp_1 X0))))$$