

t19_topreal5 (TMcZgkSWD- nJxbEDyT4CUqj4SoQKpByWkHFL)

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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 $v1_topreal2 : \iota \Rightarrow o$ be given. Let $k18_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k22_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k13_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k23_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k12_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k10_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k19_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k11_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k9_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (\\ & \quad u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1.((v2_compts_1 \\ & \quad X1 (k15_euclid np_2)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & \quad (k15_euclid np_2)))))) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_xxreal_0 (k8_pscomp_1 \\ & \quad X0) (k8_pscomp_1 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((k17_euclid (k19_euclid X0 X1) = X0) \wedge (k18_euclid (k19_euclid X0 X1) = X1))) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & \quad np_2)))) \Rightarrow (((k17_euclid (k13_pscomp_1 X0) = k17_euclid (k23_pscomp_1 \\ & \quad X0)) \wedge ((k17_euclid (k13_pscomp_1 X0) = k17_euclid (k22_pscomp_1 \\ & \quad X0)) \wedge ((k17_euclid (k23_pscomp_1 X0) = k17_euclid (k22_pscomp_1 \\ & \quad X0)) \wedge ((k17_euclid (k23_pscomp_1 X0) = k17_euclid (k12_pscomp_1 \\ & \quad X0)) \wedge (k17_euclid (k22_pscomp_1 X0) = k17_euclid (k12_pscomp_1 \\ & \quad X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow ((k17_euclid (k10_pscomp_1 X0) = k17_euclid (k18_pscomp_1 \\ X0)) \wedge ((k17_euclid (k10_pscomp_1 X0) = k17_euclid (k19_pscomp_1 \\ X0)) \wedge ((k17_euclid (k18_pscomp_1 X0) = k17_euclid (k19_pscomp_1 \\ X0)) \wedge ((k17_euclid (k18_pscomp_1 X0) = k17_euclid (k11_pscomp_1 \\ X0)) \wedge (k17_euclid (k19_pscomp_1 X0) = k17_euclid (k11_pscomp_1 \\ X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ (\neg(v1_topreal2 X0) \wedge (r1_xreal_0 (k8_pscomp_1 X0) (k6_pscomp_1 \\ X0))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (m1_subset_1 (k9_pscomp_1 X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (m1_subset_1 (k8_pscomp_1 X0) k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (m1_subset_1 (k6_pscomp_1 X0) k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow \\ (X2 \in X1)) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (k13_pscomp_1 X0 = k19_euclid (k8_pscomp_1 X0) (k9_pscomp_1 \\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (k10_pscomp_1 X0 = k19_euclid (k6_pscomp_1 X0) (k9_pscomp_1 \\ X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ & (\neg(v1_topreal2 X0) \wedge (k18_pscomp_1 X0 = k22_pscomp_1 X0)) \end{aligned}$$