

t26_topreal4 (TMR- PHoG5yJyC7X9KejHRcqmnp6HG8twtrq1)

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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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_topreal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow ((r1_topreal4 X0 X1 X2) \Rightarrow ((X1 \in X0) \wedge (X2 \in X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2)))) \Rightarrow (((X0 \in X1) \wedge (X2 = ReplSep (toset (\lambda X3 : \\ \iota.m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) (\lambda X3 : \\ \iota.\neg(X3 \neq X0) \wedge (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2)))) \Rightarrow (\neg(r1_topreal4 X4 X0 X3) \wedge (r1_tarski X4 \\ X1)))) (\lambda X3 : \iota.X3))) \Rightarrow (r1_tarski X2 X1)))) \end{aligned}$$