

t14_tbsp_1

(TMYk9oag5xfYqfm521wGSGHQerHKjBQBrZG)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v6_tbsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v6_tbsp_1 \\ & X1 X0) \Leftrightarrow (\exists X2.(m1_subset_1 X2 k1_numbers) \wedge (\neg r1_xxreal_0 \\ & X2 k6_numbers) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (((X3 \in X1) \wedge (X4 \in \\ & X1)) \Rightarrow (r1_xxreal_0 (k2_metric_1 X0 X3 X4) X2))))))) \end{aligned} \quad (1)$$

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

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v6_tbsp_1 \\ & X1 X0) \wedge (r1_tarski X2 X1)) \Rightarrow (v6_tbsp_1 X2 X0)))) \end{aligned}$$