

t18_tbsp_1 (TM-
Pjue6JTDhV5dofZrQy7AF1W1mbEHxCZu6)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $v5_tbsp_1 : \iota \Rightarrow o$ be given. Let $v6_tbsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l1_metric_1 X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (m1_subset_1 (k2_struct_0 X0) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v6_tbsp_1 \\ & X1 X0) \Leftrightarrow (\exists X2. (m1_subset_1 X2 k1_numbers) \wedge ((\neg r1_xxreal_0 \\ & X2 k6_numbers) \wedge (\forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (((X3 \in X1) \wedge (X4 \in \\ & X1)) \Rightarrow (r1_xxreal_0 (k2_metric_1 X0 X3 X4) X2))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow ((v5_tbsp_1 \\ X0) \Leftrightarrow (\exists X1.(m1_subset_1 X1 k1_numbers) \wedge ((\neg r1_xxreal_0 \\ X1 k6_numbers) \wedge (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow \\ (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (r1_xxreal_0 (\\ k2_metric_1 X0 X2 X3) X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow ((v5_tbsp_1 \\ X0) \Leftrightarrow (v6_tbsp_1 (k2_struct_0 X0) X0)) \end{aligned}$$