

t54_topreal6 (TMXvhXuB-
WxMiM1MjP3WJCQ3fFxCZQv425bi)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $v7_metric_1 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k11_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ 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.

$$\forall X0. (l1_metric_1 X0) \Rightarrow ((\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k2_metric_1 X0 X1 X2 = k6_numbers) \Rightarrow (X1 = X2)))) \Leftrightarrow (v7_metric_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0. (l1_metric_1 X0) \Rightarrow ((\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k2_metric_1 X0 X1 X1 = k6_numbers)) \Leftrightarrow (v6_metric_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow ((\forall X1. (l1_metric_1 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow ((X3 \in k11_metric_1 X1 X2 X0) \Leftrightarrow ((\neg v2_struct_0 X1) \wedge (k2_metric_1 X1 X2 X3 = X0))))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((l1_metric_1 X0) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k2_metric_1 X0 X1 X2) k1_numbers) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l1_metric_1 X0)\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(v1_xreal_0 X2)))\Rightarrow(m1_subset_1 (k11_metric_1 X0 X1 X2) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow (X2 = X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (8)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v6_metric_1 X0)\wedge((v7_metric_1 X0)\wedge(l1_metric_1 X0))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(k11_metric_1 X0 X1 k6_numbers = k1_tarski X1))$$