

t56_topgen_1

(TMHYsoCi5pMwR2F6sDJPDBQaXUxbH64pouf)

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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 $k3_topmetr : \iota$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_borsuk_5 : \iota$ be given. Let $k3_numbers : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(\neg v2_tops_1 \ k1_numbers \ k3_topmetr) \wedge (m1_subset_1 \ k1_numbers \ (k1_zfmisc_1 \ (u1_struct_0 \ k3_topmetr))) \quad (1)$$

Assume the following.

$$(v2_tops_1 \ k1_borsuk_5 \ k3_topmetr) \wedge (m1_subset_1 \ k1_borsuk_5 \ (k1_zfmisc_1 \ (u1_struct_0 \ k3_topmetr))) \quad (2)$$

Assume the following.

$$(v2_tops_1 \ k3_numbers \ k3_topmetr) \wedge (m1_subset_1 \ k3_numbers \ (k1_zfmisc_1 \ (u1_struct_0 \ k3_topmetr))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 \ X0 \ (k4_xboole_0 \ X1 \ X0) = k2_xboole_0 \ X0 \ X1 \quad (4)$$

Assume the following.

$$u1_struct_0 \ k3_topmetr = k1_numbers \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski \ X0 \ X1) \Rightarrow (k2_xboole_0 \ X0 \ X1 = X1) \quad (6)$$

Assume the following.

$$r1_tarski \ k3_numbers \ k1_numbers \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (9)$$

Assume the following.

$$k1_borsuk_5 = k6_subset_1 k1_numbers k3_numbers \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (11)$$

Theorem 1

$$\begin{aligned} & \exists X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 k3_topmetr))) \wedge \\ & (\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 k3_topmetr))) \wedge \\ & ((v2_tops_1 X0 k3_topmetr) \wedge ((v2_tops_1 X1 k3_topmetr) \wedge (\neg v2_tops_1 \\ & (k4_subset_1 (u1_struct_0 k3_topmetr) X0 X1) k3_topmetr)))) \end{aligned}$$