

t53_topgen_1
(TMWeXgjoWb6dZYPonZthzTVKCM1qQPk3uoj)

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Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_numbers : \iota$ be given. Let $k3_topmetr : \iota$ 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 $v1_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_borsuk_5 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $c1_topgen_1 : \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(v1_tops_1 \ k1_borsuk_5 \ k3_topmetr) \wedge (m1_subset_1 \ k1_borsuk_5 \ (k1_zfmisc_1 \ (u1_struct_0 \ k3_topmetr))) \quad (1)$$

Assume the following.

$$u1_struct_0 \ k3_topmetr = k1_numbers \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 \ X0 \ X1 = k4_xboole_0 \ X0 \ X1 \quad (3)$$

Assume the following.

$$(v2_pre_topc \ k3_topmetr) \wedge (l1_pre_topc \ k3_topmetr) \quad (4)$$

Assume the following.

$$m1_subset_1 \ c1_topgen_1 \ (k1_zfmisc_1 \ (u1_struct_0 \ k3_topmetr)) \quad (5)$$

Assume the following.

$$c1_topgen_1 = k3_numbers \quad (6)$$

Assume the following.

$$\forall X0. (l1_pre_topc \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (u1_struct_0 \ X0))) \Rightarrow ((v2_tops_1 \ X1 \ X0) \Leftrightarrow (v1_tops_1 \ (k3_subset_1 \ (u1_struct_0 \ X0) \ X1) \ X0))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(k3_subset_1 X0 X1 = k4_xboole_0 X0 X1) \quad (8)$$

Assume the following.

$$k1_borsuk_5 = k6_subset_1 k1_numbers k3_numbers \quad (9)$$

Theorem 1

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