

t20_topmetr (TM- MmaP4xS7AhhP6owcrEpMQZBRNEm6HbhAo)

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Let $k4_topmetr : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k3_topmetr : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_metric_1 : \iota \Rightarrow o$ be given. Let $k8_metric_1 : \iota$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $k7_metric_1 : \iota$ be given. Let $k2_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $k3_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $u1_metric_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 \\ X0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ k3_topmetr)))) \Rightarrow ((X2 = k1_rcomp_1 X0 X1) \Rightarrow (k4_topmetr X0 X1 = k1_pre_topc \\ k3_topmetr X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 \\ k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (4)$$

Assume the following.

$$v1_xboole_0 \text{ } np_0 \quad (5)$$

Assume the following.

$$r1_xxreal_0 \text{ } np_0 \text{ } np_1 \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$\exists X0.(l1_pre_topc \text{ } X0) \wedge ((v2_struct_0 \text{ } X0) \wedge (v1_pre_topc \text{ } X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 \text{ } X1 \text{ } (k1_zfmisc_1 \text{ } (k1_zfmisc_1 \\ X0))) \Rightarrow (\forall X2.\forall X3.(g1_pre_topc \text{ } X0 \text{ } X1 = g1_pre_topc \\ X2 \text{ } X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_funct_1 \text{ } X1) \wedge ((v1_funct_2 \text{ } X1 \text{ } (k2_zfmisc_1 \\ X0 \text{ } X0) \text{ } k1_numbers) \wedge (m1_subset_1 \text{ } X1 \text{ } (k1_zfmisc_1 \text{ } (k2_zfmisc_1 \\ (k2_zfmisc_1 \text{ } X0 \text{ } X0) \text{ } k1_numbers)))))) \Rightarrow (\forall X2.\forall X3.(\\ g1_metric_1 \text{ } X0 \text{ } X1 = g1_metric_1 \text{ } X2 \text{ } X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (10)$$

Assume the following.

$$(\neg v2_struct_0 \text{ } k17_borsuk_1) \wedge ((v1_pre_topc \text{ } k17_borsuk_1) \wedge (v2_pre_topc \text{ } k17_borsuk_1)) \quad (11)$$

Assume the following.

$$(\neg v2_struct_0 \text{ } k3_topmetr) \wedge ((v1_pre_topc \text{ } k3_topmetr) \wedge (v2_pre_topc \text{ } k3_topmetr)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_pre_topc \text{ } X0) \Rightarrow (\forall X1.(m1_pre_topc \text{ } X1 \text{ } X0) \Rightarrow (l1_pre_topc \text{ } X1)) \quad (13)$$

Assume the following.

$$(v1_metric_1 \text{ } k8_metric_1) \wedge (l1_metric_1 \text{ } k8_metric_1) \quad (14)$$

Assume the following.

$$\begin{aligned} (v1_funct_1 \text{ } k7_metric_1) \wedge ((v1_funct_2 \text{ } k7_metric_1 \text{ } (k2_zfmisc_1 \\ k1_numbers \text{ } k1_numbers) \text{ } k1_numbers) \wedge (m1_subset_1 \text{ } k7_metric_1 \\ (k1_zfmisc_1 \text{ } (k2_zfmisc_1 \text{ } (k2_zfmisc_1 \text{ } k1_numbers \text{ } k1_numbers) \\ k1_numbers)))) \end{aligned} \quad (15)$$

Assume the following.

$$(v2_pre_topc\ k3_topmetr)\wedge(l1_pre_topc\ k3_topmetr) \quad (16)$$

Assume the following.

$$\forall X0.(l1_metric_1\ X0)\Rightarrow(m1_subset_1\ (k2_pcomps_1\ X0)\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0\ X0)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k1_rcomp_1\ X0\ X1)\ (k1_zfmisc_1\ k1_numbers)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\Rightarrow((v1_pre_topc\ (k1_pre_topc\ X0\ X1))\wedge(m1_pre_topc\ (k1_pre_topc\ X0\ X1)\ X0)) \quad (19)$$

Assume the following.

$$k3_topmetr = k3_pcomps_1\ k8_metric_1 \quad (20)$$

Assume the following.

$$\forall X0.(l1_metric_1\ X0)\Rightarrow(k3_pcomps_1\ X0 = g1_pre_topc\ (u1_struct_0\ X0)\ (k2_pcomps_1\ X0)) \quad (21)$$

Assume the following.

$$k8_metric_1 = g1_metric_1\ k1_numbers\ k7_metric_1 \quad (22)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow((X0 = k17_borsuk_1)\Leftrightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ (k3_pcomps_1\ k8_metric_1))))\Rightarrow((X1 = k1_rcomp_1\ k6_numbers\ np_1)\Rightarrow(X0 = k1_pre_topc\ (k3_pcomps_1\ k8_metric_1)\ X1)))) \quad (23)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(v1_xreal_0\ X0) \quad (24)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow((v1_pre_topc\ X0)\Rightarrow(X0 = g1_pre_topc\ (u1_struct_0\ X0)\ (u1_pre_topc\ X0))) \quad (25)$$

Assume the following.

$$\forall X0.(l1_metric_1\ X0)\Rightarrow((v1_metric_1\ X0)\Rightarrow(X0 = g1_metric_1\ (u1_struct_0\ X0)\ (u1_metric_1\ X0))) \quad (26)$$

Theorem 1 $k4_topmetr\ k6_numbers\ np_1 = k17_borsuk_1.$