

t6_moebius1 (TMUH- wLouCWUm9bkgLpH6Qqbi2H5HYDEsVDn)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_1 : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k10_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_nat_d X1 X0) \Rightarrow ((r1_xxreal_0 X0 k6_numbers) \vee (r1_xxreal_0 X1 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0))))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \neq np_1) \Rightarrow (((X1 \neq k6_numbers) \wedge (k11_nat_3 X1 X0 = k6_numbers)) \Leftrightarrow (\neg r1_nat_d X0 X1)))) \quad (4)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (5)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (6)$$

Assume the following.

$$v1_xboole_0 \text{ } np_0 \tag{7}$$

Assume the following.

$$r1_xxreal_0 \text{ } np_1 \text{ } np_1 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \text{ } X0)\wedge(v7_ordinal1 \text{ } X1))\Rightarrow(r1_nat_d \text{ } X0 \text{ } X0) \tag{9}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{10}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \text{ } X0)\wedge(v7_ordinal1 \text{ } X1))\Rightarrow(k11_nat_3 \text{ } X0 \text{ } X1 = k10_nat_3 \text{ } X0 \text{ } X1) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \text{ } X0)\wedge(v7_ordinal1 \text{ } X1))\Rightarrow(v7_ordinal1 \text{ } (k10_nat_3 \text{ } X0 \text{ } X1)) \tag{13}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \text{ } X0)\Rightarrow(((v1_int_2 \text{ } X0)\Leftrightarrow((\neg r1_xxreal_0 \text{ } X0 \text{ } np_1)\wedge(\forall X1.(v7_ordinal1 \text{ } X1)\Rightarrow(\neg(r1_int_1 \text{ } X1 \text{ } X0)\wedge((X1\neq np_1)\wedge(X1\neq X0))))))) \tag{14}$$

Assume the following.

$$\forall X0.(m1_subset_1 \text{ } X0 \text{ } k4_ordinal1)\Rightarrow(v7_ordinal1 \text{ } X0) \tag{15}$$

Assume the following.

$$\forall X0.((v1_xxreal_0 \text{ } X0)\wedge(v2_xxreal_0 \text{ } X0))\Rightarrow((\neg v1_xboole_0 \text{ } X0)\wedge((v1_xxreal_0 \text{ } X0)\wedge(\neg v3_xxreal_0 \text{ } X0))) \tag{16}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \text{ } X0)\Rightarrow((v7_ordinal1 \text{ } X0)\wedge(\neg v3_xxreal_0 \text{ } X0)) \tag{17}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \text{ } X0)\Rightarrow(v1_xxreal_0 \text{ } X0) \tag{18}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \text{ } X0)\Rightarrow(v1_xreal_0 \text{ } X0) \tag{19}$$

Theorem 1

$$\forall X0.((v7_ordinal1 \text{ } X0)\wedge(v1_int_2 \text{ } X0))\Rightarrow(\forall X1.((\neg v1_xboole_0 \text{ } X1)\wedge(v7_ordinal1 \text{ } X1))\Rightarrow((r1_nat_d \text{ } X0 \text{ } X1)\Leftrightarrow(\neg r1_xxreal_0 \text{ } (k11_nat_3 \text{ } X1 \text{ } X0) \text{ } k6_numbers)))$$