

t60_moebius1 (TMKWMfzRD- STfsk9WHDNfDCcxXYjLdVnzh9r)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_moebius1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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 $k6_numbers : \iota$ be given. Let $v1_int_2 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (r1_xxreal_0 (k6_moebius1 X0) X0) \quad (2)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((r1_nat_d X0 X1) \Leftrightarrow (r1_nat_d X0 (k6_moebius1 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(\neg v1_xboole_0 X0) \wedge ((X0 \neq np_1) \wedge (r1_xxreal_0 X0 np_1))) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\neg r1_xxreal_0 (k6_moebius1 X0) k6_numbers) \quad (5)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(\neg(X0\neq np_1)\wedge(\forall X1.((v7_ordinal1 X1)\wedge(v1_int_2 X1))\Rightarrow(\neg r1_nat_d X1 X0))) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge(v7_ordinal1 X0))\Rightarrow(\neg v1_xboole_0 (k6_moebius1 X0)) \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (13)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge(v7_ordinal1 X0))\Rightarrow(m2_subset_1 (k6_moebius1 X0) k1_numbers k5_numbers) \quad (14)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((v1_int_2 X0)\Leftrightarrow((\neg r1_xreal_0 X0 np_1)\wedge(\forall X1.(v7_ordinal1 X1)\Rightarrow(\neg(r1_int_1 X1 X0)\wedge((X1\neq np_1)\wedge(X1\neq X0)))))) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (17)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0)\wedge(v7_ordinal1 X0))\Rightarrow((k6_moebius1 X0 = np_1)\Leftrightarrow(X0 = np_1))$$