

t20_moebius1
(TMLB42K8xqoXp6Y4PacjyJMyu6V8fYs9rYd)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_moebius1 : \iota \Rightarrow o$ 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 $k4_ordinal1 : \iota$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow ((r1_nat_d X0 X1) \wedge (r1_nat_d X1 X2)) \Rightarrow (r1_nat_d \\ & \quad X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow ((r1_nat_d X0 X1) \Rightarrow (r1_nat_d (k1_newton X0 X2) \\ & \quad (k1_newton X1 X2))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(X0 \neq np_1) \wedge (\forall X1.((v7_ordinal1 X1) \wedge (v1_int_2 X1)) \Rightarrow (\neg r1_nat_d X1 X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k1_newton X0 X1)) \tag{6}$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v1_moebius1\ X0)\Leftrightarrow(\exists X1.(v7_ordinal1\ X1)\wedge(v1_int_2\ X1))\wedge(r1_nat_d\ (k1_newton\ X1\ np_2)\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (8)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((\exists X1.((\neg v1_xboole_0\ X1)\wedge(v7_ordinal1\ X1))\wedge((X1\neq np_1)\wedge(r1_nat_d\ (k1_newton\ X1\ np_2)\ X0)))\Rightarrow(v1_moebius1\ X0))$$