

t26_bcialg_5
(TMLxN1a6ta7DghBULp1saN7MLfADQ94J4fr)

October 27, 2020

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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_bcialg_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (r1_xxreal_0 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (r1_xxreal_0 X0 (k4_xxreal_0 X0 X1))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow (k7_nat_1 X0 X1 = k4_xxreal_0 X0 X1) \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow (k7_nat_1 X0 X0 = X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(v1_xxreal_0 (k4_xxreal_0 X0 X1)) \quad (7)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(m2_subset_1 (k7_nat_1 X0 X1) k1_numbers k5_numbers) \quad (10)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X0 k5_numbers)\wedge((m1_subset_1 X1 k5_numbers)\wedge((m1_subset_1 X2 k5_numbers)\wedge(m1_subset_1 X3 k5_numbers))))\Rightarrow(v1_xxreal_0 (k3_bcialg_5 X0 X1 X2 X3)) \quad (12)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers)\Rightarrow(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers)\Rightarrow(\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers)\Rightarrow(k3_bcialg_5 X0 X1 X2 X3 = k7_nat_1 (k7_nat_1 X0 X1 (k7_nat_1 X2 X3)))))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(k7_nat_1 X0 X1 = k7_nat_1 X1 X0) \quad (14)$$

Theorem 1

$$\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers)\Rightarrow(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers)\Rightarrow(\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers)\Rightarrow((r1_xxreal_0 X0 (k3_bcialg_5 X0 X1 X2 X3))\wedge((r1_xxreal_0 X1 (k3_bcialg_5 X0 X1 X2 X3))\wedge((r1_xxreal_0 X2 (k3_bcialg_5 X0 X1 X2 X3))\wedge(r1_xxreal_0 X3 (k3_bcialg_5 X0 X1 X2 X3))))))))$$