

t31_calcul_1 (TMNM-
fVjMDp5o1XJkejcDD7MyR2PeZbhn2md)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_calcul_1 : \iota \Rightarrow \iota$ be given. Let $k2_cqc_the1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $np_4 : \iota$ be given. Let $np_5 : \iota$ be given. Let $np_6 : \iota$ be given. Let $np_7 : \iota$ be given. Let $np_8 : \iota$ be given. Let $np_9 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $np_0 : \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow & (\neg(r1_xxreal_0 X0 np_9) \wedge ((X0 \neq k6_numbers) \wedge \\ & ((X0 \neq np_1) \wedge ((X0 \neq np_2) \wedge ((X0 \neq np_3) \wedge ((X0 \neq np_4) \wedge ((X0 \neq np_5) \wedge \\ & ((X0 \neq np_6) \wedge ((X0 \neq np_7) \wedge ((X0 \neq np_8) \wedge (X0 \neq np_9)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X1 \in k1_relset_1 k5_numbers X0) \Leftrightarrow \\ ((r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 (k3_finseq_1 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.(m2_finseq_1 \\ X2 X1) \Rightarrow ((X0 \in k4_finseq_1 X2) \Rightarrow (k1_funct_1 X2 X0 \in X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0 \in k2_zfmisc_1 X1 X2) \Rightarrow ((k1_xtuple_0 X0 \in X1) \wedge (k2_xtuple_0 X0 \in X2)) \quad (5)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (7)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (11)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \quad (14)$$

Assume the following.

$$k2_cqc_the1 = ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 k5_numbers)) (\lambda X0 : \iota.r1_xxreal_0 X0 np_9) (\lambda X0 : \iota.X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (16)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v7_ordinal1 X1)) \quad (17)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m1_qc_lang1 X0)\Rightarrow(\forall X1.(m2_finseq_1 X1 (k2_zfmisc_1 \\ &\quad (k4_calcul_1 X0) k2_cqc_the1))\Rightarrow(\forall X2.(v7_ordinal1 X2)\Rightarrow \\ &\quad (\neg(r1_xxreal_0 np_1 X2)\wedge(r1_xxreal_0 X2 (k3_finseq_1 X1))\wedge \\ &\quad ((k2_xtuple_0 (k1_funct_1 X1 X2)\neq k6_numbers)\wedge((k2_xtuple_0 \\ &\quad (k1_funct_1 X1 X2)\neq np_1)\wedge((k2_xtuple_0 (k1_funct_1 X1 X2)\neq np_2)\wedge \\ &\quad ((k2_xtuple_0 (k1_funct_1 X1 X2)\neq np_3)\wedge((k2_xtuple_0 (k1_funct_1 \\ &\quad X1 X2)\neq np_4)\wedge((k2_xtuple_0 (k1_funct_1 X1 X2)\neq np_5)\wedge((k2_xtuple_0 \\ &\quad (k1_funct_1 X1 X2)\neq np_6)\wedge((k2_xtuple_0 (k1_funct_1 X1 X2)\neq np_7)\wedge \\ &\quad ((k2_xtuple_0 (k1_funct_1 X1 X2)\neq np_8)\wedge(k2_xtuple_0 (k1_funct_1 \\ &\quad X1 X2)\neq np_9))))))))))))) \end{aligned}$$