

t36_chain_1

(TMcmc7x7nM8Svoqes4GQVAqYKr3hfAgvUSk)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $m1_chain_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_chain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_chain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $m2_chain_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_chain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
 & ((\neg v1_xboole_0 X1) \wedge (m2_subset_1 X1 k1_numbers k5_numbers)) \Rightarrow \\
 & (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid X1)) \Rightarrow (\forall X3. \\
 & (m2_finseq_2 X3 k1_numbers (k1_euclid X1)) \Rightarrow (\forall X4.(m1_chain_1 \\
 & X4 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((k3_chain_1 X1 X2 X3 \in k4_chain_1 X1 \\
 & X4 X0) \Leftrightarrow (\neg (\forall X5.(m1_subset_1 X5 (k1_zfmisc_1 (k2_finseq_1 \\
 & X1))) \Rightarrow (\neg (k5_card_1 X5 = X0) \wedge (\forall X6.(m2_subset_1 X6 k5_numbers \\
 & (k2_finseq_1 X1)) \Rightarrow (((X6 \in X5) \wedge ((\neg r1_xxreal_0 (k1_seq_1 X3 X6) \\
 & (k1_seq_1 X2 X6)) \wedge (m2_chain_1 (k1_domain_1 k1_numbers k1_numbers \\
 & (k1_seq_1 X2 X6) (k1_seq_1 X3 X6)) (k2_chain_1 X1 X4 X6)))))) \vee ((\neg X6 \in \\
 & X5) \wedge ((k1_seq_1 X2 X6 = k1_seq_1 X3 X6) \wedge (k1_seq_1 X2 X6 \in k2_chain_1 \\
 & X1 X4 X6)))))) \wedge (\neg (X0 = X1) \wedge (\forall X5.(m2_subset_1 X5 k5_numbers \\
 & (k2_finseq_1 X1)) \Rightarrow ((\neg r1_xxreal_0 (k1_seq_1 X2 X5) (k1_seq_1 X3 \\
 & X5)) \wedge (m2_chain_1 (k1_domain_1 k1_numbers k1_numbers (k1_seq_1 \\
 & X2 X5) (k1_seq_1 X3 X5)) (k2_chain_1 X1 X4 X5))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\neg v1_finset_1 k4_ordinal1 \quad (5)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0)\Rightarrow(\forall X2.(m2_finseq_2 X2 X0 X1)\Rightarrow(m2_finseq_1 X2 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (8)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(m1_subset_1 (k1_seq_1 X0 X1) k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(m1_finseq_2 (k1_euclid X0) k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow((r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(v5_relat_1 X1 X0) \quad (14)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v5_relat_1 X0 k1_numbers))\Rightarrow((v1_relat_1 X0)\wedge(v3_valued_0 X0)) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(v1_finset_1 X0) \quad (18)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v7_ordinal1 X1)) \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1. \\ & ((\neg v1_xboole_0 X1)\wedge(m2_subset_1 X1 k1_numbers k5_numbers))\Rightarrow \\ & (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid X1))\Rightarrow(\forall X3. \\ & (m2_finseq_2 X3 k1_numbers (k1_euclid X1))\Rightarrow(\forall X4.(m1_chain_1 \\ & X4 X1)\Rightarrow(\neg(r1_xxreal_0 X0 X1)\wedge((k3_chain_1 X1 X2 X3 \in k4_chain_1 \\ & X1 X4 X0)\wedge((\neg\forall X5.(m2_subset_1 X5 k5_numbers (k2_finseq_1 \\ & X1))\Rightarrow(r1_xxreal_0 (k1_seq_1 X2 X5) (k1_seq_1 X3 X5))))\wedge(\exists X5. \\ & (m2_subset_1 X5 k5_numbers (k2_finseq_1 X1))\wedge(r1_xxreal_0 (k1_seq_1 \\ & X2 X5) (k1_seq_1 X3 X5)))))))))) \end{aligned}$$