

t45_finseq_2

(TMaVA2KdaB4XepPDmfKKQLQu2NK8BvLp66Y)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
 & ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 X2)))) \Rightarrow (\forall X3. \\
 & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k2_finseq_1 X0) (k2_finseq_1 \\
 & X1)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_finseq_1 \\
 & X0) (k2_finseq_1 X1)))))) \Rightarrow ((r1_xxreal_0 X1 (k3_finseq_1 X2)) \Rightarrow \\
 & (((X1 = k6_numbers) \wedge (X0 \neq k6_numbers)) \vee ((v1_relat_1 (k3_relat_1 \\
 & X3 X2)) \wedge ((v1_funct_1 (k3_relat_1 X3 X2)) \wedge (v1_finseq_1 (k3_relat_1 \\
 & X3 X2))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow (r1_tarski (k10_xtuple_0 (k3_relat_1 X0 X1)) (k10_xtuple_0 X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & (((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1))))\wedge((v1_funct_1 X5)\wedge(m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X2 X3))))\Rightarrow(k1_partfun1 X0 X1 X2 X3 X4 X5 = k3_relat_1 X4 X5) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge(\\ & (v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(\\ & (v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 \\ & X1)))\Rightarrow((m1_finseq_1 X1 X0)\Leftrightarrow(r1_tarski (k10_xtuple_0 X1) X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \end{aligned} \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.(v7_ordinal1 X1)\Rightarrow(\forall X2. \\ & (\neg v1_xboole_0 X2)\Rightarrow(\forall X3.(m2_finseq_1 X3 X2)\Rightarrow(\forall X4. \\ & ((v1_funct_1 X4)\wedge((v1_funct_2 X4 (k2_finseq_1 X0) (k2_finseq_1 \\ & X1))\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (k2_finseq_1 \\ & X0) (k2_finseq_1 X1))))\Rightarrow((r1_xxreal_0 X1 (k3_finseq_1 X3))\Rightarrow \\ & (((X1 = k6_numbers)\wedge(X0\neq k6_numbers))\vee(m2_finseq_1 (k1_partfun1 \\ & (k2_finseq_1 X0) (k2_finseq_1 X1) k5_numbers X2 X4 X3) X2)))))) \end{aligned}$$