

t5_matrix_7

(TMWvW2WG6rSvGKKU9P8BRe31K2PttDb6Sth)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 X0) \Rightarrow \\
 & (\forall X2. (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (\forall X3. \\
 & (m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow (\forall X4. (m2_subset_1 \\
 & X4 k1_numbers k5_numbers) \Rightarrow (((r1_xxreal_0 np_1 X2) \wedge (r1_xxreal_0 \\
 & X4 (k3_finseq_1 X1)) \wedge (r1_xxreal_0 X2 X3)) \Rightarrow ((r1_xxreal_0 X4 X3) \vee \\
 & (k8_finseq_1 X0 (k3_finseq_6 X0 X1 X2 X3) (k3_finseq_6 X0 X1 (k2_nat_1 \\
 & X3 np_1) X4) = k3_finseq_6 X0 X1 X2 X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. \\
 & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\
 & (r1_xxreal_0 X0 X2))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 X0) \Rightarrow \\
 & ((r1_xxreal_0 np_1 (k3_finseq_1 X1)) \Rightarrow (k3_finseq_6 X0 X1 np_1 \\
 & (k3_finseq_1 X1) = X1)))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
 & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\
 & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers))
 \end{aligned} \tag{4}$$

Assume the following.

$$r1_xxreal_0 \ np_1 \ np_1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 \ X0)\wedge(v1_xxreal_0 \ X1))\Rightarrow(r1_xxreal_0 \ X0 \ X0) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 \ X0)\wedge((\neg v1_xboole_0 \ X1)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0))))\Rightarrow(\forall X2.(m2_subset_1 \ X2 \ X0 \ X1)\Leftrightarrow(m1_subset_1 \ X2 \ X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 \ X1 \ X0)\Leftrightarrow(m1_finseq_1 \ X1 \ X0) \tag{8}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{9}$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1)\wedge(v3_ordinal1 \ k4_ordinal1) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 \ X1 \ X0)\Rightarrow((v1_relat_1 \ X1)\wedge(v1_funct_1 \ X1)\wedge(v1_finseq_1 \ X1)) \tag{11}$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \tag{12}$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0)\wedge((v1_funct_1 \ X0)\wedge(v1_finseq_1 \ X0)))\Rightarrow(m2_subset_1 \ (k3_finseq_1 \ X0) \ k1_numbers \ k5_numbers) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 \ X0)\wedge(v1_xxreal_0 \ X1))\Rightarrow((r1_xxreal_0 \ X0 \ X1)\vee(r1_xxreal_0 \ X1 \ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1)\Rightarrow(v7_ordinal1 \ X0) \tag{15}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0)\Rightarrow(v1_xxreal_0 \ X0) \tag{16}$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0)\Rightarrow(\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0))\Rightarrow(v1_xboole_0 \ X1)) \tag{17}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 X0) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 \\ X2) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X1) X2) \vee (X1 = k8_finseq_1 X0 (k3_finseq_6 \\ X0 X1 np_1 X2) (k3_finseq_6 X0 X1 (k2_nat_1 X2 np_1) (k3_finseq_1 \\ X1))))))) \end{aligned}$$