

t7_integra3

(TMdGLtm5tKVt4kCVWBsVoWFGcLufUKAzZzn)

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 $v2_measure5 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_integral : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_integral : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_integral : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ 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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_rcomp_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow ((v5_valued_0 X0) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 k1_numbers k5_numbers) \Rightarrow (((X1 \in k4_finseq_1 X0) \wedge ((X2 \in k4_finseq_1 \\ & X0) \wedge (r1_xxreal_0 X1 X2))) \Rightarrow (r1_xxreal_0 (k1_seq_1 X0 X1) (k1_seq_1 \\ & X0 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))) \quad (8)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_rcomp_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1. (m1_integra1 X1 X0) \Rightarrow ((\neg v1_xboole_0 X1) \wedge (v5_valued_0 X1) \wedge (m2_finseq_1 X1 k1_numbers))) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1) \wedge (v1_finseq_1 X1)) \quad (10)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (((\neg v1_xboole_0 X0) \wedge ((v2_measure5 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \wedge ((m1_integra1 X1 X0) \wedge ((m1_integra1 X2 X0) \wedge (v7_ordinal1 X3)))) \Rightarrow (m2_subset_1 (k13_integra1 X0 X1 X2 X3) k1_numbers k5_numbers) \quad (12)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 X0 k1_numbers) \wedge (v1_funct_1 X0)))) \Rightarrow ((v5_valued_0 X0) \Leftrightarrow (\forall X1. (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (\neg (X1 \in k9_xtuple_0 X0) \wedge ((X2 \in k9_xtuple_0 X0) \wedge ((\neg r1_xxreal_0 X2 X1) \wedge (r1_xxreal_0 (k1_seq_1 X0 X2) (k1_seq_1 X0 X1)))))))) \quad (13)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_measure5 X0) \wedge (m1_subset_1 \\
& X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_integra1 X1 X0) \Rightarrow \\
& (\forall X2.(m1_integra1 X2 X0) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow \\
& ((r1_integra1 X1 X2) \Rightarrow (\forall X4.(m2_subset_1 X4 k1_numbers k5_numbers) \Rightarrow \\
& (((X3 \in k4_finseq_1 X1) \Rightarrow ((X4 = k13_integra1 X0 X1 X2 X3) \Leftrightarrow ((X4 \in k4_finseq_1 \\
& X2) \wedge (k1_seq_1 X1 X3 = k1_seq_1 X2 X4)))) \wedge ((\neg X3 \in k4_finseq_1 X1) \Rightarrow \\
& ((X4 = k13_integra1 X0 X1 X2 X3) \Leftrightarrow (X4 = k6_numbers)))))))))) \\
& \tag{14}
\end{aligned}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\
& ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge \\
& (v1_finseq_1 X0)))) \\
& \tag{16}
\end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow (v5_relat_1 X1 X0) \tag{17}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v2_measure5 X0) \Rightarrow (v1_rcomp_1 X0)) \tag{18}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.((\neg v1_xboole_0 \\
& X2) \wedge ((v2_measure5 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k1_numbers)))) \Rightarrow \\
& (\forall X3.(m1_integra1 X3 X2) \Rightarrow (\forall X4.(m1_integra1 X4 X2) \Rightarrow \\
& (((r1_integra1 X3 X4) \wedge ((X0 \in k4_finseq_1 X3) \wedge ((X1 \in k4_finseq_1 \\
& X3) \wedge (r1_xxreal_0 X0 X1)))) \Rightarrow ((r1_xxreal_0 (k13_integra1 X2 X3 \\
& X4 X0) (k13_integra1 X2 X3 X4 X1)) \wedge (k13_integra1 X2 X3 X4 X0 \in k4_finseq_1 \\
& X4)))))) \\
& \tag{19}
\end{aligned}$$