

t47_integr19
(TMQJmBc6sVDg6JryS8YaFtE5DepoaTLFo3c)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_integr5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_integr18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v2_normsp_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_measure5 : \iota \Rightarrow o$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_integr18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_normsp_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ & X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ & (\forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_numbers (u1_struct_0 X0)))))) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\ & X2) \wedge ((v2_measure5 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k1_numbers)))) \Rightarrow \\ & (\forall X3. (m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4. (m1_subset_1 \\ & X4 k1_numbers) \Rightarrow (((X2 = k1_rcomp_1 X4 X3) \wedge (r1_tarski X2 (k1_relset_1 \\ & k1_numbers X1))) \Rightarrow (k4_algstr_0 X0 (k5_integr18 X0 X2 X1) = k6_integr18 \\ & X0 X1 X3 X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

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

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((\neg v2_struct_0 (k4_real_ns1 X0))\wedge((v13_algstr_0 (k4_real_ns1 X0))\wedge((v2_rlvect_1 (k4_real_ns1 X0))\wedge((v3_rlvect_1 (k4_real_ns1 X0))\wedge((v4_rlvect_1 (k4_real_ns1 X0))\wedge((v5_rlvect_1 (k4_real_ns1 X0))\wedge((v6_rlvect_1 (k4_real_ns1 X0))\wedge((v7_rlvect_1 (k4_real_ns1 X0))\wedge((v8_rlvect_1 (k4_real_ns1 X0))\wedge((v3_normsp_0 (k4_real_ns1 X0))\wedge((v4_normsp_0 (k4_real_ns1 X0))\wedge((v1_normsp_1 (k4_real_ns1 X0))\wedge(v2_normsp_1 (k4_real_ns1 X0)))))))))))))) \quad (6)$$

Assume the following.

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

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((\neg v2_struct_0 (k4_real_ns1 X0))\wedge((v1_normsp_1 (k4_real_ns1 X0))\wedge(l1_normsp_1 (k4_real_ns1 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow((\neg v1_xboole_0 (k3_integra5 X0 X1))\wedge((v2_measure5 (k3_integra5 X0 X1))\wedge(m1_subset_1 (k3_integra5 X0 X1) (k1_zfmisc_1 k1_numbers)))) \quad (10)$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\
& X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\
& (\forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers (u1_struct_0 X0)))))) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow \\
& (\forall X3. (v1_xreal_0 X3) \Rightarrow (((r1_xxreal_0 X2 X3) \Rightarrow (k6_integr18 \\
& X0 X1 X2 X3 = k5_integr18 X0 (k3_integra5 X2 X3) X1)) \wedge ((\neg r1_xxreal_0 \\
& X2 X3) \Rightarrow (k6_integr18 X0 X1 X2 X3 = k4_algstr_0 X0 (k5_integr18 X0 (\\
& k3_integra5 X3 X2) X1))))))
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k3_integra5 X0 X1 = k1_rcomp_1 X0 X1))) \tag{12}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \tag{13}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{14}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (v1_xreal_0 X1) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow (\forall X3. ((v1_funct_1 \\
& X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers (u1_struct_0 \\
& (k4_real_ns1 X0)))))) \Rightarrow (((r1_xxreal_0 X1 X2) \wedge (r1_tarski (k3_integra5 \\
& X1 X2) (k1_relset_1 k1_numbers X3))) \Rightarrow (k6_integr18 (k4_real_ns1 \\
& X0) X3 X2 X1 = k4_algstr_0 (k4_real_ns1 X0) (k6_integr18 (k4_real_ns1 \\
& X0) X3 X1 X2))))))
\end{aligned}$$