

t5_rsspace3
(TMcY2JApHSYm9FcvDL3wNXbpvbHVXScsB7J)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $g1_normsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rsspace3 : \iota$ be given. Let $k10_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_rsspace : \iota$ be given. Let $k8_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rsspace3 : \iota$ 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 $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $g1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u1_rlvect_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_normsp_1 : \iota \Rightarrow o$ be given. Let $v1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ be given. Let $l2_normsp_0 : \iota \Rightarrow o$ be given. Let $u1_normsp_0 : \iota \Rightarrow \iota$ be given. Assume the

following.

$$\begin{aligned}
& \forall X0.(l1_rlvect_1 X0) \Rightarrow (((\neg v2_struct_0 (g1_rlvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge ((v13_algstr_0 \\
& (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_rlvect_1 X0))) \wedge ((v2_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge ((v3_rlvect_1 \\
& (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_rlvect_1 X0))) \wedge ((v4_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge ((v5_rlvect_1 \\
& (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_rlvect_1 X0))) \wedge ((v6_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge ((v7_rlvect_1 \\
& (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_rlvect_1 X0))) \wedge ((v8_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (l1_rlvect_1 \\
& (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_rlvect_1 X0)))))))))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge \\
& ((v5_rlvect_1 X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 \\
& X0) \wedge (l1_rlvect_1 X0))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& (\neg v2_struct_0 (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace \\
& k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace \\
& k7_rsspace k1_rsspace3))) \wedge ((v13_algstr_0 (g1_rlvect_1 k1_rsspace3 \\
& (k10_rsspace k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace \\
& k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge ((v2_rlvect_1 \\
& (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge \\
& ((v3_rlvect_1 (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace \\
& k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace \\
& k7_rsspace k1_rsspace3))) \wedge ((v4_rlvect_1 (g1_rlvect_1 k1_rsspace3 \\
& (k10_rsspace k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace \\
& k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge ((v5_rlvect_1 \\
& (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge \\
& ((v6_rlvect_1 (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace \\
& k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace \\
& k7_rsspace k1_rsspace3))) \wedge ((v7_rlvect_1 (g1_rlvect_1 k1_rsspace3 \\
& (k10_rsspace k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace \\
& k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge ((v8_rlvect_1 \\
& (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3))) \wedge \\
& (l1_rlvect_1 (g1_rlvect_1 k1_rsspace3 (k10_rsspace k7_rsspace \\
& k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace \\
& k7_rsspace k1_rsspace3))))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((m1_subset_1 \\
& X1 X0) \wedge (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& X0)))))) \wedge (((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k2_zfmisc_1 k1_numbers \\
& X0) X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers X0) X0)))))) \wedge ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 k1_numbers) \wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))))) \Rightarrow \\
& (\forall X5. \forall X6. \forall X7. \forall X8. \forall X9. (g1_normsp_1 \\
& X0 X1 X2 X3 X4 = g1_normsp_1 X5 X6 X7 X8 X9) \Rightarrow ((X0 = X5) \wedge ((X1 = X6) \wedge ((X2 = \\
& X7) \wedge ((X3 = X8) \wedge (X4 = X9))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X0)\wedge((m1_subset_1 X1 X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 (\\ & k2_zfmisc_1 X0 X0) X0)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0))))\wedge(((v1_funct_1 X3)\wedge((v1_funct_2 X3 \\ & (k2_zfmisc_1 k1_numbers X0) X0)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 k1_numbers X0) X0))))\wedge((v1_funct_1 \\ & X4)\wedge((v1_funct_2 X4 X0 k1_numbers)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 k1_numbers))))))))))\Rightarrow((\neg v2_struct_0 (g1_normsp_1 \\ & X0 X1 X2 X3 X4))\wedge(v1_normsp_1 (g1_normsp_1 X0 X1 X2 X3 X4))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & (v13_algstr_0 (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize \\ & k1_rssize3) (k8_rssize k7_rssize k1_rssize3) (k9_rssize \\ & k7_rssize k1_rssize3))\wedge((v1_rlvect_1 (g1_rlvect_1 k1_rssize3 \\ & (k10_rssize k7_rssize k1_rssize3) (k8_rssize k7_rssize \\ & k1_rssize3) (k9_rssize k7_rssize k1_rssize3))\wedge((v2_rlvect_1 \\ & (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize k1_rssize3) \\ & (k8_rssize k7_rssize k1_rssize3) (k9_rssize k7_rssize k1_rssize3)))\wedge \\ & ((v3_rlvect_1 (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize \\ & k1_rssize3) (k8_rssize k7_rssize k1_rssize3) (k9_rssize \\ & k7_rssize k1_rssize3))\wedge((v4_rlvect_1 (g1_rlvect_1 k1_rssize3 \\ & (k10_rssize k7_rssize k1_rssize3) (k8_rssize k7_rssize \\ & k1_rssize3) (k9_rssize k7_rssize k1_rssize3))\wedge((v5_rlvect_1 \\ & (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize k1_rssize3) \\ & (k8_rssize k7_rssize k1_rssize3) (k9_rssize k7_rssize k1_rssize3)))\wedge \\ & ((v6_rlvect_1 (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize \\ & k1_rssize3) (k8_rssize k7_rssize k1_rssize3) (k9_rssize \\ & k7_rssize k1_rssize3))\wedge((v7_rlvect_1 (g1_rlvect_1 k1_rssize3 \\ & (k10_rssize k7_rssize k1_rssize3) (k8_rssize k7_rssize \\ & k1_rssize3) (k9_rssize k7_rssize k1_rssize3))\wedge(v8_rlvect_1 \\ & (g1_rlvect_1 k1_rssize3 (k10_rssize k7_rssize k1_rssize3) \\ & (k8_rssize k7_rssize k1_rssize3) (k9_rssize k7_rssize k1_rssize3)))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & (v13_algstr_0 k7_rssize)\wedge((v2_rlvect_1 k7_rssize)\wedge((v3_rlvect_1 \\ & k7_rssize)\wedge((v4_rlvect_1 k7_rssize)\wedge((v5_rlvect_1 k7_rssize)\wedge \\ & ((v6_rlvect_1 k7_rssize)\wedge((v7_rlvect_1 k7_rssize)\wedge(v8_rlvect_1 \\ & k7_rssize)))))) \end{aligned} \quad (6)$$

Assume the following.

$$(\neg v2_struct_0 k7_rssize)\wedge(v1_rlvect_1 k7_rssize) \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k1_rssize3 \quad (8)$$

Assume the following.

$$\forall X0.(l1_normsp_1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l2_normsp_0 X0)) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\ & ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 \\ & X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge \\ & (l1_rlvect_1 X0)))))))))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((v1_funct_1 (k9_rsspace X0 X1)) \wedge ((v1_funct_2 (k9_rsspace \\ & X0 X1) (k2_zfmisc_1 k1_numbers X1) X1) \wedge (m1_subset_1 (k9_rsspace \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 k1_numbers X1) X1)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\ & ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 \\ & X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge \\ & (l1_rlvect_1 X0)))))))))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((v1_funct_1 (k8_rsspace X0 X1)) \wedge ((v1_funct_2 (k8_rsspace \\ & X0 X1) (k2_zfmisc_1 X1 X1) X1) \wedge (m1_subset_1 (k8_rsspace X0 X1) (\\ & k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X1 X1) X1)))))) \end{aligned} \quad (11)$$

Assume the following.

$$l1_rlvect_1 k7_rsspace \quad (12)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k2_rsspace3) \wedge ((v1_funct_2 k2_rsspace3 k1_rsspace3 \\ & k1_numbers) \wedge (m1_subset_1 k2_rsspace3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_rsspace3 k1_numbers)))) \end{aligned} \quad (13)$$

Assume the following.

$$m1_subset_1 k1_rsspace3 (k1_zfmisc_1 (u1_struct_0 k7_rsspace)) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\ & ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 \\ & X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge \\ & (l1_rlvect_1 X0)))))))))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow (m1_subset_1 (k10_rsspace X0 X1) X1) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((m1_subset_1 \\
& X1 X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0)\wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& X0))))\wedge(((v1_funct_1 X3)\wedge((v1_funct_2 X3 (k2_zfmisc_1 k1_numbers \\
& X0) X0)\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers X0) X0))))\wedge((v1_funct_1 X4)\wedge((v1_funct_2 X4 X0 k1_numbers)\wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers))))))\Rightarrow \\
& ((v1_normsp_1 (g1_normsp_1 X0 X1 X2 X3 X4)\wedge(l1_normsp_1 (g1_normsp_1 \\
& X0 X1 X2 X3 X4)))
\end{aligned} \tag{16}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_normsp_1 X0)\Rightarrow((v1_normsp_1 X0)\Rightarrow(X0 = g1_normsp_1 \\
& (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 \\
& X0) (u1_normsp_0 X0)))
\end{aligned} \tag{17}$$

Theorem 1

$$\begin{aligned}
& (\neg v2_struct_0 (g1_normsp_1 k1_rsspace3 (k10_rsspace k7_rsspace \\
& k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace \\
& k7_rsspace k1_rsspace3) k2_rsspace3))\wedge((v13_algstr_0 (g1_normsp_1 \\
& k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) (k8_rsspace \\
& k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3) \\
& k2_rsspace3))\wedge((v2_rlvect_1 (g1_normsp_1 k1_rsspace3 (k10_rsspace \\
& k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) \\
& (k9_rsspace k7_rsspace k1_rsspace3) k2_rsspace3))\wedge((v3_rlvect_1 \\
& (g1_normsp_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3) \\
& k2_rsspace3))\wedge((v4_rlvect_1 (g1_normsp_1 k1_rsspace3 (k10_rsspace \\
& k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) \\
& (k9_rsspace k7_rsspace k1_rsspace3) k2_rsspace3))\wedge((v5_rlvect_1 \\
& (g1_normsp_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3) \\
& k2_rsspace3))\wedge((v6_rlvect_1 (g1_normsp_1 k1_rsspace3 (k10_rsspace \\
& k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) \\
& (k9_rsspace k7_rsspace k1_rsspace3) k2_rsspace3))\wedge((v7_rlvect_1 \\
& (g1_normsp_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3) \\
& k2_rsspace3))\wedge((v8_rlvect_1 (g1_normsp_1 k1_rsspace3 (k10_rsspace \\
& k7_rsspace k1_rsspace3) (k8_rsspace k7_rsspace k1_rsspace3) \\
& (k9_rsspace k7_rsspace k1_rsspace3) k2_rsspace3))\wedge(l1_rlvect_1 \\
& (g1_normsp_1 k1_rsspace3 (k10_rsspace k7_rsspace k1_rsspace3) \\
& (k8_rsspace k7_rsspace k1_rsspace3) (k9_rsspace k7_rsspace k1_rsspace3) \\
& k2_rsspace3)))))))))
\end{aligned}$$