

t5_csspace3

(TMRf8z4x2QtJGc6xLZSpwSWVYVQrW8SsUT4)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $k3_csspace3 : \iota$ 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 $v2_clvect_1 : \iota \Rightarrow o$ be given. Let $v3_clvect_1 : \iota \Rightarrow o$ be given. Let $v4_clvect_1 : \iota \Rightarrow o$ be given. Let $v5_clvect_1 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Let $g1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $u1_clvect_1 : \iota \Rightarrow \iota$ be given. Let $k1_csspace3 : \iota$ be given. Let $k10_csspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_csspace : \iota$ be given. Let $k8_csspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_csspace : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $g2_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_clvect_1 : \iota \Rightarrow o$ be given. Let $l2_clvect_1 : \iota \Rightarrow o$ be given. Let $l2_normsp_0 : \iota \Rightarrow o$ be given. Let $k2_csspace3 : \iota$ be given. Let $v7_clvect_1 : \iota \Rightarrow o$ be given. Let $u1_normsp_0 : \iota \Rightarrow \iota$ be given.

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_clvect_1 X0) \Rightarrow (((\neg v2_struct_0 (g1_clvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 X0))) \wedge ((v13_algstr_0 \\
& (g1_clvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_clvect_1 X0))) \wedge ((v2_rlvect_1 (g1_clvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 X0))) \wedge ((v3_rlvect_1 \\
& (g1_clvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_clvect_1 X0))) \wedge ((v4_rlvect_1 (g1_clvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 X0))) \wedge ((v2_clvect_1 \\
& (g1_clvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_clvect_1 X0))) \wedge ((v3_clvect_1 (g1_clvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 X0))) \wedge ((v4_clvect_1 \\
& (g1_clvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_clvect_1 X0))) \wedge ((v5_clvect_1 (g1_clvect_1 (u1_struct_0 \\
& X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 X0))) \wedge (l1_clvect_1 \\
& (g1_clvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\
& (u1_clvect_1 X0)))))))))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge \\
& ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge ((v5_clvect_1 \\
& X0) \wedge (l1_clvect_1 X0))))))))))
\end{aligned}$$

(1)

Assume the following.

$$\begin{aligned}
& (\neg v2_struct_0 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))) \wedge ((v13_algstr_0 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge ((v2_rlvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge \\
& ((v3_rlvect_1 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))) \wedge ((v4_rlvect_1 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge ((v2_clvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge \\
& ((v3_clvect_1 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))) \wedge ((v4_clvect_1 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge ((v5_clvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))) \wedge \\
& (l1_clvect_1 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((m1_subset_1 \\
& X1 X0) \wedge (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& X0)))))) \wedge (((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k2_zfmisc_1 k2_numbers \\
& X0) X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& k2_numbers X0) X0)))))) \wedge ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 k1_numbers) \wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))))) \Rightarrow \\
& (\forall X5. \forall X6. \forall X7. \forall X8. \forall X9. (g2_clvect_1 \\
& X0 X1 X2 X3 X4 = g2_clvect_1 X5 X6 X7 X8 X9) \Rightarrow ((X0 = X5) \wedge ((X1 = X6) \wedge ((X2 = \\
& X7) \wedge ((X3 = X8) \wedge (X4 = X9))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X1 \\
& X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0)\wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& X0))))\wedge((v1_funct_1 X3)\wedge((v1_funct_2 X3 (k2_zfmisc_1 k2_numbers \\
& X0) X0)\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& k2_numbers X0) X0))))))\Rightarrow(\forall X4.\forall X5.\forall X6.\forall X7. \\
& (g1_clvect_1 X0 X1 X2 X3 = g1_clvect_1 X4 X5 X6 X7)\Rightarrow((X0 = X4)\wedge((X1 = \\
& X5)\wedge((X2 = X6)\wedge(X3 = X7))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& (v13_algstr_0 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))\wedge((v2_rlvect_1 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))\wedge((v3_rlvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))\wedge \\
& ((v4_rlvect_1 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))\wedge((v1_clvect_1 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))\wedge((v2_clvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))\wedge \\
& ((v3_clvect_1 (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3))\wedge((v4_clvect_1 (g1_clvect_1 k1_csspace3 \\
& (k10_csspace k7_csspace k1_csspace3) (k8_csspace k7_csspace \\
& k1_csspace3) (k9_csspace k7_csspace k1_csspace3))\wedge(v5_clvect_1 \\
& (g1_clvect_1 k1_csspace3 (k10_csspace k7_csspace k1_csspace3) \\
& (k8_csspace k7_csspace k1_csspace3) (k9_csspace k7_csspace k1_csspace3))))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& (\neg v2_struct_0 k7_csspace)\wedge((v13_algstr_0 k7_csspace)\wedge((v2_rlvect_1 \\
& k7_csspace)\wedge((v3_rlvect_1 k7_csspace)\wedge((v4_rlvect_1 k7_csspace)\wedge \\
& ((v1_clvect_1 k7_csspace)\wedge((v2_clvect_1 k7_csspace)\wedge((v3_clvect_1 \\
& k7_csspace)\wedge((v4_clvect_1 k7_csspace)\wedge(v5_clvect_1 k7_csspace))))))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.(l2_clvect_1 X0)\Rightarrow((l1_clvect_1 X0)\wedge(l2_normsp_0 X0)) \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge \\ & ((v2_rlvect_1 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge((v2_clvect_1 \\ & X0)\wedge((v3_clvect_1 X0)\wedge((v4_clvect_1 X0)\wedge((v5_clvect_1 X0)\wedge \\ & (l1_clvect_1 X0))))))))))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))))\Rightarrow((v1_funct_1 (k9_csspace X0 X1))\wedge((v1_funct_2 (k9_csspace \\ & X0 X1) (k2_zfmisc_1 k2_numbers X1) X1)\wedge(m1_subset_1 (k9_csspace \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 k2_numbers X1) X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge \\ & ((v2_rlvect_1 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge((v2_clvect_1 \\ & X0)\wedge((v3_clvect_1 X0)\wedge((v4_clvect_1 X0)\wedge((v5_clvect_1 X0)\wedge \\ & (l1_clvect_1 X0))))))))))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))))\Rightarrow((v1_funct_1 (k8_csspace X0 X1))\wedge((v1_funct_2 (k8_csspace \\ & X0 X1) (k2_zfmisc_1 X1 X1) X1)\wedge(m1_subset_1 (k8_csspace X0 X1) (\\ & k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X1 X1) X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$(\neg v2_struct_0 k7_csspace)\wedge((v1_clvect_1 k7_csspace)\wedge(l1_clvect_1 k7_csspace)) \quad (10)$$

Assume the following.

$$(\neg v2_struct_0 k3_csspace3)\wedge(l2_clvect_1 k3_csspace3) \quad (11)$$

Assume the following.

$$(v1_funct_1 k2_csspace3)\wedge((v1_funct_2 k2_csspace3 k1_csspace3 k1_numbers)\wedge(m1_subset_1 k2_csspace3 (k1_zfmisc_1 (k2_zfmisc_1 k1_csspace3 k1_numbers)))) \quad (12)$$

Assume the following.

$$m1_subset_1 k1_csspace3 (k1_zfmisc_1 (u1_struct_0 k7_csspace)) \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge \\ & ((v2_rlvect_1 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge((v2_clvect_1 \\ & X0)\wedge((v3_clvect_1 X0)\wedge((v4_clvect_1 X0)\wedge((v5_clvect_1 X0)\wedge \\ & (l1_clvect_1 X0))))))))))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))))\Rightarrow(m1_subset_1 (k10_csspace X0 X1) X1) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((m1_subset_1 \\
& X1 X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0)\wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& X0))))\wedge(((v1_funct_1 X3)\wedge((v1_funct_2 X3 (k2_zfmisc_1 k2_numbers \\
& X0) X0)\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& k2_numbers X0) X0))))\wedge((v1_funct_1 X4)\wedge((v1_funct_2 X4 X0 k1_numbers)\wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers))))))\Rightarrow \\
& ((v7_clvect_1 (g2_clvect_1 X0 X1 X2 X3 X4)\wedge(l2_clvect_1 (g2_clvect_1 \\
& X0 X1 X2 X3 X4)))
\end{aligned} \tag{15}$$

Assume the following.

$$\begin{aligned}
& k3_csspace3 = g2_clvect_1 k1_csspace3 (k10_csspace k7_csspace \\
& k1_csspace3) (k8_csspace k7_csspace k1_csspace3) (k9_csspace \\
& k7_csspace k1_csspace3) k2_csspace3
\end{aligned} \tag{16}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2_clvect_1 X0)\Rightarrow((v7_clvect_1 X0)\Rightarrow(X0 = g2_clvect_1 \\
& (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 \\
& X0) (u1_normsp_0 X0)))
\end{aligned} \tag{17}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_clvect_1 X0)\Rightarrow((v1_clvect_1 X0)\Rightarrow(X0 = g1_clvect_1 \\
& (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_clvect_1 \\
& X0)))
\end{aligned} \tag{18}$$

Theorem 1

$$\begin{aligned}
& (\neg v2_struct_0 k3_csspace3)\wedge((v13_algstr_0 k3_csspace3)\wedge((\\
& v2_rlvect_1 k3_csspace3)\wedge((v3_rlvect_1 k3_csspace3)\wedge((v4_rlvect_1 \\
& k3_csspace3)\wedge((v2_clvect_1 k3_csspace3)\wedge((v3_clvect_1 k3_csspace3)\wedge \\
& ((v4_clvect_1 k3_csspace3)\wedge((v5_clvect_1 k3_csspace3)\wedge(l1_clvect_1 \\
& k3_csspace3))))))))))
\end{aligned}$$