

t2_csspace (TM- RdLqQkZVkhf7WFB3BUGSD1yP6Q7vAiLyK)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $g1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_csspace : \iota$ be given. Let $k6_csspace : \iota$ be given. Let $k4_csspace : \iota$ be given. Let $k5_csspace : \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_series_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k2_csspace : \iota \Rightarrow \iota$ 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 $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Let $v1_clvect_1 : \iota \Rightarrow o$ be given. Let $k5_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_clvect_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X1 \\ & X0) \wedge (((v1_funct_1 X2) \wedge (v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\ & X0)))) \wedge ((v1_funct_1 X3) \wedge (v1_funct_2 X3 (k2_zfmisc_1 k2_numbers \\ & X0) X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & k2_numbers X0) X0)))))) \Rightarrow (\forall X4. \forall X5. \forall X6. \forall X7. \\ & (g1_clvect_1 X0 X1 X2 X3 = g1_clvect_1 X4 X5 X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = \\ & X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \tag{2}$$

Assume the following.

$$\forall X0. (l1_clvect_1 X0) \Rightarrow (l2_algstr_0 X0) \tag{3}$$

Assume the following.

$$m1_subset_1 k6_csspace k1_csspace \tag{4}$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 \ k5_csspace) \wedge ((v1_funct_2 \ k5_csspace \ (k2_zfmisc_1 \\ & \ k2_numbers \ k1_csspace) \ k1_csspace) \wedge (m1_subset_1 \ k5_csspace \\ & (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ k2_numbers \ k1_csspace) \\ & \ k1_csspace)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 \ k4_csspace) \wedge ((v1_funct_2 \ k4_csspace \ (k2_zfmisc_1 \\ & \ k1_csspace \ k1_csspace) \ k1_csspace) \wedge (m1_subset_1 \ k4_csspace \\ & (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ k1_csspace \ k1_csspace) \\ & \ k1_csspace)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 \ X1 \\ & \ X0) \wedge (((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge \\ & \ (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \\ & \ X0)))) \wedge ((v1_funct_1 \ X3) \wedge ((v1_funct_2 \ X3 \ (k2_zfmisc_1 \ k2_numbers \\ & \ X0) \ X0) \wedge (m1_subset_1 \ X3 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \\ & \ k2_numbers \ X0) \ X0)))))) \Rightarrow ((v1_clvect_1 \ (g1_clvect_1 \ X0 \ X1 \ X2 \ X3)) \wedge \\ & \ (l1_clvect_1 \ (g1_clvect_1 \ X0 \ X1 \ X2 \ X3))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_funct_1 \ X0) \wedge ((v1_funct_2 \ X0 \ (k2_zfmisc_1 \ k1_csspace \\ & \ k1_csspace) \ k1_csspace) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ & \ (k2_zfmisc_1 \ k1_csspace \ k1_csspace) \ k1_csspace)))) \Rightarrow ((X0 = k4_csspace) \Leftrightarrow \\ & \ (\forall X1. (m1_subset_1 \ X1 \ k1_csspace) \Rightarrow (\forall X2. (m1_subset_1 \\ & \ X2 \ k1_csspace) \Rightarrow (k5_binop_1 \ k1_csspace \ X0 \ X1 \ X2 = k1_series_1 \ k2_numbers \\ & \ (k2_csspace \ X1) \ (k2_csspace \ X2)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_algstr_0 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \\ & \ X0)) \Rightarrow (\forall X2. (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \Rightarrow (k1_algstr_0 \\ & \ X0 \ X1 \ X2 = k5_binop_1 \ (u1_struct_0 \ X0) \ (u1_algstr_0 \ X0) \ X1 \ X2))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_clvect_1 \ X0) \Rightarrow ((v1_clvect_1 \ X0) \Rightarrow (X0 = g1_clvect_1 \\ & \ (u1_struct_0 \ X0) \ (u2_struct_0 \ X0) \ (u1_algstr_0 \ X0) \ (u1_clvect_1 \\ & \ X0))) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (u1_struct_0 \ (g1_clvect_1 \ k1_csspace \\ & \ k6_csspace \ k4_csspace \ k5_csspace))) \Rightarrow (\forall X1. (m1_subset_1 \\ & \ X1 \ (u1_struct_0 \ (g1_clvect_1 \ k1_csspace \ k6_csspace \ k4_csspace \\ & \ k5_csspace))) \Rightarrow (k1_algstr_0 \ (g1_clvect_1 \ k1_csspace \ k6_csspace \\ & \ k4_csspace \ k5_csspace) \ X0 \ X1 = k1_series_1 \ k2_numbers \ (k2_csspace \\ & \ X0) \ (k2_csspace \ X1))) \end{aligned}$$