

t9_cfcont_1
(TMG5XLhdzYaaqUg3ifUipAALrVkrTV8GbQq)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_numbers : \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k31_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k10_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k30_valued_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge ((v1_funct_2 X1 k5_numbers k2_numbers) \wedge (m1_subset_1 X1 (\\ & k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k2_numbers \\ & k2_numbers)))))) \Rightarrow ((r1_tarski (k2_relset_1 k2_numbers X1) (k1_relset_1 \\ & k2_numbers X2)) \Rightarrow (r2_relset_1 k5_numbers k2_numbers (k8_funct_2 \\ & k5_numbers k2_numbers k2_numbers X1 (k25_valued_1 k2_numbers \\ & k2_numbers X2 X0)) (k25_valued_1 k5_numbers k2_numbers (k8_funct_2 \\ & k5_numbers k2_numbers k2_numbers X1 X2) X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (\\ & m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))))) \Rightarrow (\\ & r2_relset_1 X0 k2_numbers (k31_valued_1 X0 k2_numbers X1) (k25_valued_1 \\ & X0 k2_numbers X1 (k10_complex1 k6_complex1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\ & (r2_relset_1 k5_numbers k2_numbers (k31_valued_1 k5_numbers \\ & k2_numbers X0) (k25_valued_1 k5_numbers k2_numbers X0 (k10_complex1 \\ & k6_complex1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))) \Rightarrow ((r2_relset_1 X0 X1 X2 X3) \Rightarrow (r2_relset_1 \\ & X0 X1 X3 X2)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))) \Rightarrow ((r2_relset_1 X0 X1 X2 X3) \Leftrightarrow (X2 = X3)) \end{aligned} \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_membered X1) \wedge ((v1_funct_1 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (k31_valued_1 \\ & X0 X1 X2 = k30_valued_1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k2_numbers \quad (8)$$

Assume the following.

$$v1_membered k2_numbers \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X2) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X2) \wedge (m1_subset_1 X3 \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X2)))))) \wedge ((v1_relat_1 X4) \wedge ((v5_relat_1 \\ & X4 X1) \wedge (v1_funct_1 X4)))) \Rightarrow ((v1_funct_1 (k8_funct_2 X0 X1 X2 X3 \\ & X4) \wedge ((v1_funct_2 (k8_funct_2 X0 X1 X2 X3 X4) X0 X1) \wedge (m1_subset_1 \\ & (k8_funct_2 X0 X1 X2 X3 X4) (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \end{aligned} \quad (10)$$

Assume the following.

$$m1_subset_1 k6_complex1 k2_numbers \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_membered\ X1) \wedge ((v1_funct_1 \\ & X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))) \Rightarrow ((v1_funct_1 \\ & (k31_valued_1\ X0\ X1\ X2)) \wedge (m1_subset_1\ (k31_valued_1\ X0\ X1\ X2)\ (\\ & k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k2_numbers)))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_membered\ X1) \wedge \\ & (((v1_funct_1\ X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ X1)))) \wedge (v1_xcmplx_0\ X3))) \Rightarrow ((v1_funct_1\ (k25_valued_1\ X0\ X1 \\ & X2\ X3)) \wedge (m1_subset_1\ (k25_valued_1\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ k2_numbers)))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k2_numbers) \Rightarrow (m1_subset_1\ (k10_complex1\ X0)\ k2_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1))) \Rightarrow ((v4_relat_1\ X2\ X0) \wedge (v5_relat_1\ X2\ X1)) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0. (v1_membered\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ X0) \Rightarrow (v1_xcmplx_0\ X1)) \quad (17)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ k5_numbers\ k2_numbers) \wedge \\ & (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ k2_numbers)))) \Rightarrow \\ & (\forall X1. ((v1_funct_1\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & k2_numbers\ k2_numbers)))) \Rightarrow ((r1_tarski\ (k2_relset_1\ k2_numbers \\ & X0)\ (k1_relset_1\ k2_numbers\ X1)) \Rightarrow (r2_relset_1\ k5_numbers\ k2_numbers \\ & (k31_valued_1\ k5_numbers\ k2_numbers\ (k8_funct_2\ k5_numbers\ k2_numbers \\ & k2_numbers\ X0\ X1))\ (k8_funct_2\ k5_numbers\ k2_numbers\ k2_numbers \\ & X0\ (k31_valued_1\ k2_numbers\ k2_numbers\ X1)))) \end{aligned}$$