

t16_cfunct_1

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k2_numbers : \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k19_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & \quad m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (\\ & \quad \forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad \quad X0 k2_numbers)))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge (m1_subset_1 \\ & \quad \quad X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (r2_relset_1 \\ & \quad X0 k2_numbers (k19_valued_1 X0 k2_numbers k2_numbers (k2_valued_1 \\ & \quad X0 k2_numbers k2_numbers X1 X2) X3) (k2_valued_1 X0 k2_numbers k2_numbers \\ & \quad (k19_valued_1 X0 k2_numbers k2_numbers X1 X3) (k19_valued_1 X0 \\ & \quad \quad k2_numbers k2_numbers X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$v1_membered k2_numbers \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v1_membered \\ & \quad X1) \wedge ((v1_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & \quad \quad (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & \quad \quad (k2_zfmisc_1 X0 X2)))))) \Rightarrow ((v1_funct_1 (k2_valued_1 X0 X1 X2 X3 \\ & \quad X4) \wedge (m1_subset_1 (k2_valued_1 X0 X1 X2 X3 X4) (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad \quad X0 k2_numbers)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v1_membered \\ & X1) \wedge ((v1_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2)))))) \Rightarrow (k19_valued_1 X0 X1 X2 X3 X4 = k19_valued_1 \\ & X0 X1 X2 X4 X3) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (\\ & \forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 k2_numbers)))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (r2_relset_1 \\ & X0 k2_numbers (k19_valued_1 X0 k2_numbers k2_numbers X1 (k2_valued_1 \\ & X0 k2_numbers k2_numbers X2 X3)) (k2_valued_1 X0 k2_numbers k2_numbers \\ & (k19_valued_1 X0 k2_numbers k2_numbers X1 X2) (k19_valued_1 X0 \\ & k2_numbers k2_numbers X1 X3)))))) \end{aligned}$$