

l3_ortsp_1

(TMPzoZ3omeC7bGTavrKJD6rMQbVkf8fhcY)

October 27, 2020

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 $c1_ortsp_1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c2_ortsp_1 : \iota$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow \iota \Rightarrow \iota. \forall X1. \forall X2. \forall X3. \exists X4. \\ & ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (k2_zfmisc_1 X3 X2) X1) \wedge (m1_subset_1 \\ & X4 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X3 X2) X1)))))) \wedge (\forall X5. \\ & (m1_subset_1 X5 X3) \Rightarrow (\forall X6. (m1_subset_1 X6 X2) \Rightarrow (k2_binop_1 \\ & X3 X2 X1 X4 X5 X6 = X0 X5 X6))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X1) \wedge \\ & ((v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((m1_subset_1 X2 X0) \wedge \\ & (m1_subset_1 X3 X0)) \Rightarrow (k5_binop_1 X0 X1 X2 X3 = k1_binop_1 X1 X2 X3) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (((v1_funct_1 X3) \wedge ((\\ & v1_funct_2 X3 (k2_zfmisc_1 X0 X1) X2) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X1) X2)))))) \wedge ((m1_subset_1 X4 X0) \wedge \\ & (m1_subset_1 X5 X1)))))) \Rightarrow (k2_binop_1 X0 X1 X2 X3 X4 X5 = k1_binop_1 \\ & X3 X4 X5) \end{aligned} \tag{3}$$

Assume the following.

$$m1_subset_1 c2_ortsp_1 c1_ortsp_1 \tag{4}$$

Assume the following.

$$\neg v1_xboole_0 c1_ortsp_1 \tag{5}$$

Theorem 1

$$\begin{aligned} & \exists X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k2_zfmisc_1 c1_ortsp_1 \\ & c1_ortsp_1) c1_ortsp_1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 c1_ortsp_1 c1_ortsp_1) c1_ortsp_1)))))) \wedge (\forall X1. \\ & (m1_subset_1 X1 c1_ortsp_1) \Rightarrow (\forall X2.(m1_subset_1 X2 c1_ortsp_1) \Rightarrow \\ & (k5_binop_1 c1_ortsp_1 X0 X1 X2 = c2_ortsp_1))) \end{aligned}$$