

t6_heyting1

(TMFGp3HDtQfrr1gj3hhSuBZZkjTFZ4gAgW9)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $k7_normform : \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k12_normform : \iota \Rightarrow \iota$ be given. Let $k4_heyting1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_heyting1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k7_normform X0)) \Rightarrow (k2_heyting1 \\ X0 X1 = k1_tarski X1) \quad (2)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k7_normform X0) \quad (3)$$

Assume the following.

$$\forall X0. m1_subset_1 (k7_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 \\ (k5_finsub_1 X0) (k5_finsub_1 X0))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_funct_1 (k4_heyting1 X0)) \wedge ((v1_funct_2 (k4_heyting1 \\ X0) (k7_normform X0) (u1_struct_0 (k12_normform X0))) \wedge (m1_subset_1 \\ (k4_heyting1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k7_normform X0) (\\ u1_struct_0 (k12_normform X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k7_normform \\ & X0) (u1_struct_0 (k12_normform X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k7_normform X0) (u1_struct_0 (k12_normform X0)))))) \Rightarrow \\ & ((X1 = k4_heyting1 X0) \Leftrightarrow (\forall X2. (m2_subset_1 X2 (k2_zfmisc_1 \\ & (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (k3_funct_2 \\ & (k7_normform X0) (u1_struct_0 (k12_normform X0)) X1 X2 = k2_heyting1 \\ & X0 X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (7)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 \\ & X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform \\ & X0)) \Rightarrow ((X1 \in k3_funct_2 (k7_normform X0) (u1_struct_0 (k12_normform \\ & X0)) (k4_heyting1 X0) X2) \Rightarrow (X1 = X2))) \end{aligned}$$