

t8_heyting1

(TMQrF8YtCMWfAniDkx5fGwpmDmdPPnPaPNJ)

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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 $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k11_setwiseo : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_heyting1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 X0 (k5_finsub_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 (k5_finsub_1 X0)))))) \Rightarrow ((r2_funct_2 X0 (k5_finsub_1 \\ & X0) X1 (k11_setwiseo X0)) \Leftrightarrow (\forall X2. (m1_subset_1 X2 X0) \Rightarrow (k3_funct_2 \\ & X0 (k5_finsub_1 X0) X1 X2 = k1_tarski X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 \\ & X3) \Leftrightarrow (X2 = X3)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k7_normform X0)) \Rightarrow (k2_heyting1 \\ & X0 X1 = k1_tarski X1) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k7_normform X0) \quad (5)$$

Assume the following.

$$\forall X0. m1_subset_1 (k7_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \quad (6)$$

Assume the following.

$$\forall X0. (v1_funct_1 (k4_heyting1 X0)) \wedge ((v1_funct_2 (k4_heyting1 X0) (k7_normform X0) (u1_struct_0 (k12_normform X0))) \wedge (m1_subset_1 (k4_heyting1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k7_normform X0) (u1_struct_0 (k12_normform X0)))))) \quad (7)$$

Assume the following.

$$\forall X0. (v1_funct_1 (k11_setwiseo X0)) \wedge ((v1_funct_2 (k11_setwiseo X0) X0 (k5_finsub_1 X0)) \wedge (m1_subset_1 (k11_setwiseo X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k5_finsub_1 X0)))))) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k7_normform X0) (u1_struct_0 (k12_normform X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k7_normform X0) (u1_struct_0 (k12_normform X0))))))) \Rightarrow ((X1 = k4_heyting1 X0) \Leftrightarrow (\forall X2. (m2_subset_1 X2 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (k3_funct_2 (k7_normform X0) (u1_struct_0 (k12_normform X0)) X1 X2 = k2_heyting1 X0 X2))) \quad (9)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (10)$$

Theorem 1

$$\forall X0. \forall X1. (m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (k3_funct_2 (k7_normform X0) (u1_struct_0 (k12_normform X0)) (k4_heyting1 X0) X1 = k3_funct_2 (k7_normform X0) (k5_finsub_1 (k7_normform X0)) (k11_setwiseo (k7_normform X0) X1))$$